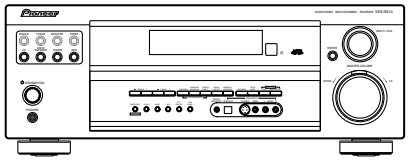
Pioneer sound.vision.soul

Service Manual



VSX-D814-K

ORDER NO.
RRV2929

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D814-K
VSX-D814-S

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
VSX-D814-K	MYXJI	AC220-230V	
VSX-D814-S	MYXJI	AC220-230V	

For details, refer to "Important symbols for good services".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
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ⓒ**PIONEER CORPORATION 2004**

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SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

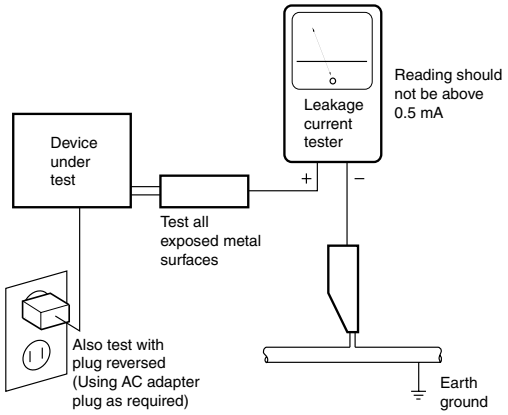
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Leakage current tester
Reading should not be above 0.5 mA
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

CONTENTS

SAFETY INFORMATION 2
1. SPECIFICATIONS 5
2. EXPLODED VIEWS AND PARTS LIST 7
2.1 PACKING 7
2.2 EXTERIOR SECTION 8
2.3 FRONT PANEL SECTION 10
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM 12
3.1 BLOCK DIAGRAM 12
3.2 OVERALL WIRING CONNECTION DIAGRAM 14
3.3 MAIN ASSY (1/3) 16
3.4 MAIN ASSY (2/3) 18
3.5 MAIN ASSY (3/3) 20
3.6 DSP ASSY (1/2) 22
3.7 DSP ASSY (2/2) 24
3.8 AMP & PRIMARY (1/2), TRANS2 and TRANS3 ASSYS 26
3.9 AMP & PRIMARY (2/2), REG. , AMP INPUT and TRANS1 ASSYS 28
3.10 VIDEO, 5.1CH, B TO B and S. VIDEO ASSYS 30
3.11 FRONT DISPLAY, R. ENCODER, P. SW & FUNC. KEY and FRONT KEY ASSYS 32
3.12 TRANS4, H.P., PRE-OUT, D.IN, COMP. and F. VIDEO&OPT&MIC ASSYS 34
4. PCB CONNECTION DIAGRAM 36
4.1 REGULATOR ASSY 36
4.2 TRANS2, TRANS3, TRANS1 and TRANS4 ASSYS 37
4.3 MAIN ASSY 38
4.4 DSP ASSY 42
4.5 AMP & PRIMARY and AMP INPUT ASSYS 44
4.6 F. DISPLAY, R. ENCODER, P. SW&FUNC. KEY, H. P. and F. KEY ASSYS 46
4.7 B TO B, DIGITAL IN, VIDEO and 5.1CH ASSYS 50
4.8 S.VIDEO, F. VIDEO&OPT&MIC, COMPONENT and PRE-OUT ASSYS 52
5. PCB PARTS LIST 54
6. ADJUSTMENT 59
7. GENERAL INFORMATION 60
7.1 DIAGNOSIS 60
7.1.1 DISASSEMBLY 60
7.2 PARTS 62
7.2.1 IC 62
7.2.2 DISPLAY 68
7.3 EXPLANATION 70
7.3.1 POWER ON AND OFF INITIAL TIMING CHART 70
7.3.2 IC DATA TRANSMISSION TIMING CHART 72
7.3.3 DETECTION CIRCUIT 73
7.3.4 AMPLIFIER SYSTEM PROTECTION OPERATION SPECIFICATION 74
7.3.5 AMPLIFIER FAILURE DIAGNOSIS FLOW CHART 76
7.4 CLEANING 76
8. PANEL FACILITIES 77

1. SPECIFICATIONS

Amplifier section

Continuous power output (stereo)
Front. . . . . .100 W (DIN 1kHz, THD 1.0%, 8 Ω)

Continuous power output (surround)
Front. . . . .100 W per channel (1kHz, 1.0%, 8 Ω)
Center . . . . . .100 W (1kHz, 1.0%, 8 Ω)
Surround . . . . . 100W per channel (1kHz, 1.0%, 8 Ω)
Surround Back . . . . . .100 W (1kHz, 1.0 %, 8 Ω)

The above specifications are applicable when the power supply is 230 V.

Input (Sensitivity/Impedance)
CD, DVR/VCR, CD-R/TAPE/MD, DVD/LD, TV/SAT. . . . . .200 mV/47 kΩ

Frequency response
CD, DVR/VCR, CD-R/TAPE/MD, DVD/LD, TV/SAT. . . . . 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB

Output (Level/Impedance)
DVR/VCR REC, CD-R/TAPE/MD REC. . . . . .200 mV/2.2 kΩ

Tone control
Bass. . . . . ± 6 dB (100 Hz)
Treble. . . . . ± 6 dB (10 kHz)
Loudness. . . . +6.5 dB/+3 dB (100 Hz/10 kHz) (at volume level -50 dB)

Signal-to-Noise Ratio
DIN (Continuous rated power output / 50mW)
CD, DVR/VCR, CD-R/TAPE/MD, DVD/LD, TV/SAT. . . . . .88/64 dB

Video Section

Input (Sensitivity/Impedance)
DVR/VCR, DVD/LD, TV/SAT. . . . . .1 Vp-p/75 Ω

Output (Level/Impedance)
DVR/VCR, MONITOR OUT. . . . . .1 Vp-p/75 Ω

Frequency response
DVR/VCR, DVD/LD,
TV/SAT⇨ MONITOR . . . . 5 Hz to 7 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio . . . . . 55 dB

Component video section

Input (Sensitivity)
DVD/LD, TV/SAT. . . . . 1 Vp-p/75 Ω

Output (Level/Impedance)
MONITOR OUT. . . . . 1 Vp-p/75 Ω

Frequency response
DVD/LD,
TV/SAT⇨ MONITOR. . . . 5 Hz to 40 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio. . . . . 55 dB

FM Tuner Section

Frequency Range . . . . . .87.5 MHz to 108 MHz
Usable Sensitivity . . . . . Mono:13.2dBf, IHF (1.3 µV/ 75Ω)
50 dB Quieting Sensitivity. . . . . Mono: 20.2 dB Stereo: 38.6 dBf
Signal-to-Noise Ratio . Mono: 73 dB (at 85 dBf) Stereo: 70 dB (at 85 dBf)
Distortion . . . . . .Stereo: 0.5 % (1 kHz)
Alternate Channel Selectivity. . . . . 60dB (400 kHz)
Stereo Separation. . . . . .40 dB (1 kHz)
Frequency Response . . . . . 30 Hz to 15 kHz (±1 dB)
Antenna Input (DIN) . . . . . .75 Ω unbalanced

AM Tuner Section

Frequency Range . . . . . .531 kHz to 1,602 kHz
Sensitivity (IHF, Loop antenna) . . . . . 350 µV/m
Selectivity . . . . . 25 dB
Signal-to-Noise Ratio . . . . . 50 dB
Antenna . . . . . Loop antenna

Miscellaneous

Power Requirements . . . AC 220-230 V, 50/60Hz
Power Consumption

VSX-D814 . . . . . 280 W
In standby . . . . . .0.5 W
Dimensions . . .420 (W) x 158 (H) x 401 (D) mm
Weight (without package)

VSX-D814 . . . . . .10.6 kg

Furnished Parts

AM loop antenna 1
FM wire antenna 1
Dry cell batteries (AA size IEC R6) 2
Remote control 1
Microphone 1
Microphone stand 1
Operating instructions 1

Note

- Specifications and the design are subject to possible modifications without notice, due to improvements.

Cleaning the unit

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surface is dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleansers.
- Never use thinners, benzine, insecticide sprays or other chemicals on or near this unit, since these will corrode the surface.

"DTS" ,"DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc.

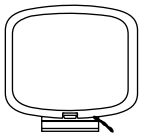
Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", "Surround EX", and the double-D symbol are trademarks of Dolby Laboratories.

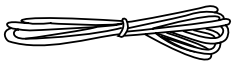
Accessories

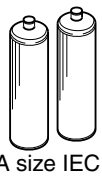
Microphone
(APM7004)

Microphone Stand
(AEB7269)

Remote control unit
(XXD3074)


AM loop antenna
(ATB7013)

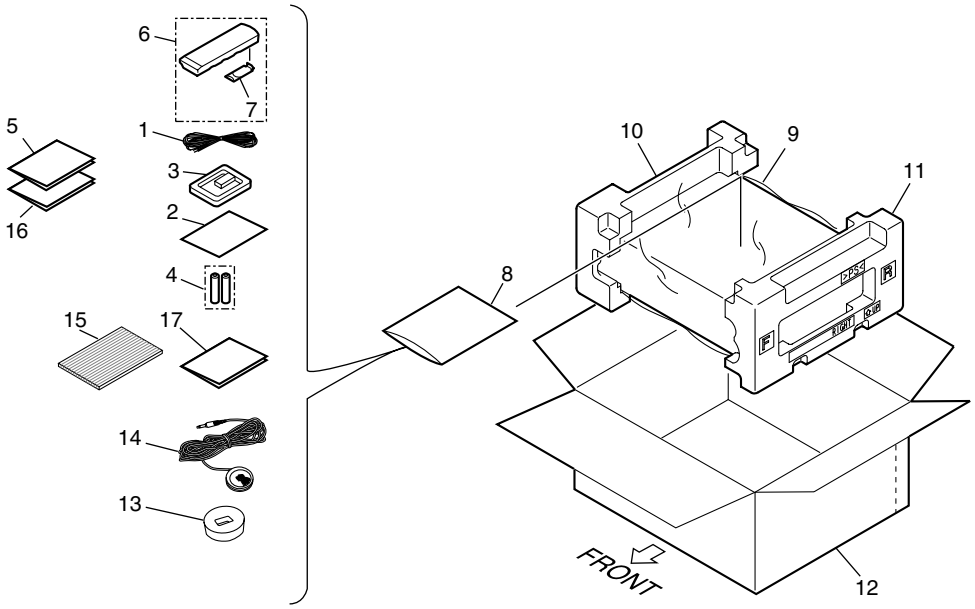

FM wire antenna
(ADH7030)


AA size IEC R6
Dry cell batteries (x2)

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screws adjacent to ▼ mark on product are used for disassembly.*
● *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING



PACKING SECTION Parts List

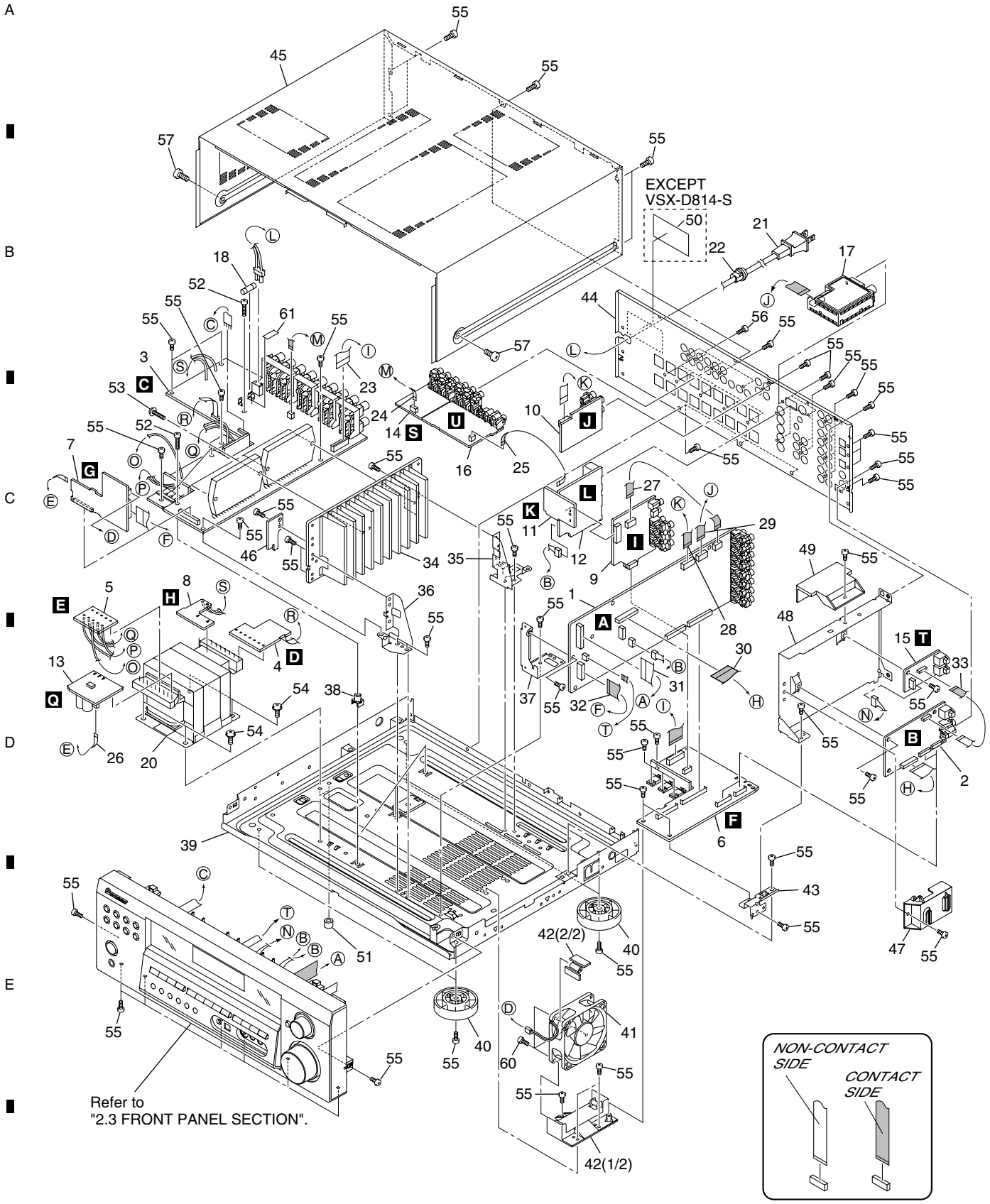
Mark	No.	Description	Part No.
	1	FM wire antenna	ADH7030
NSP	2	Warranty Card	ARY7065
	3	AM loop antenna	ATB7013
NSP	4	Alkaline Dry cell batteries (AA/R6)	VEM1031
	5	Operating instructions (English/Italian)	XRE3079
	6	Remote Control Unit	XXD3074
	7	Battery Cover	AZA7424
NSP	8	Literature Bag	AHG1180
	9	Packing Sheet	AHG7069
	10	Left Pad V1	XHA3141
	11	Right Pad V1	XHA3142
	12	Packing Case	See Contrast table(2)
	13	MIC Stand 45	AEB7269
	14	Microphone Assy	APM7004
NSP	15	Accessory Board R6	XHB3008
	16	Operating instructions (Dutch/Spanish)	XRC3117
	17	Operating instructions (French/German)	XRC3118

(2) CONTRAST TABLE

VSX-D814-K/MYXJI and VSX-D814-S/MYXJI are constructed the same except for the following :

Mark	No.	Description	VSX-D814-K/MYXJI	VSX-D814-S/MYXJI
	12	Packing Case	XHD3397	XHD3398

2.2 EXTERIOR SECTION



EXTERIOR SECTION Parts List

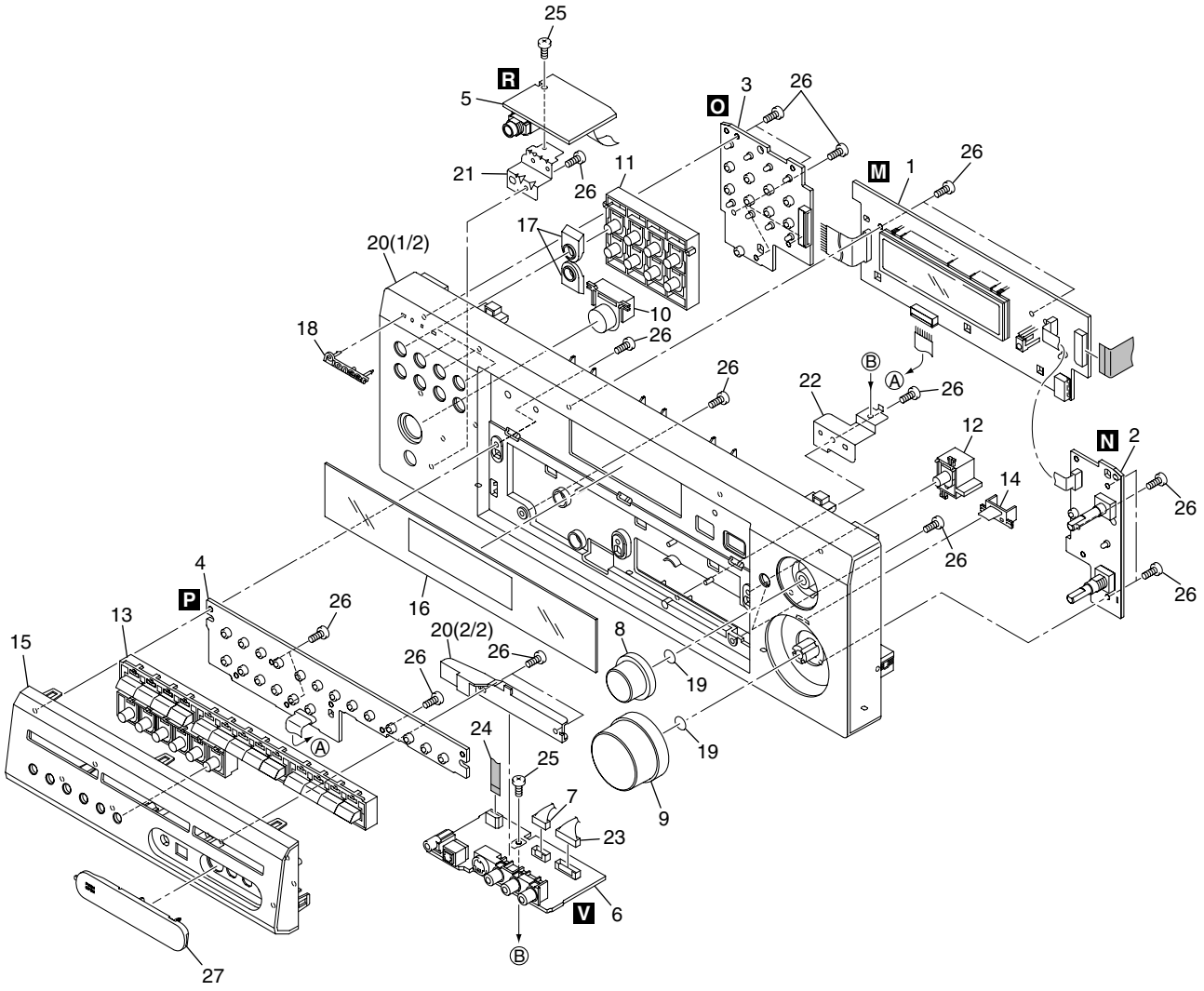
Mark	No.	Description	Part No.
	1	MAIN Assy	XWK3123
	2	DSP Assy	AWX1082
	3	AMP & PRIMARY Assy	XWZ3793
	4	TRANS2 Assy	XWZ3811
	5	TRANS3 Assy	XWZ3814
	6	REGULATOR Assy	XWZ3799
	7	AMP INPUT Assy	XWZ3804
	8	TRANS1 Assy	XWZ3807
	9	VIDEO Assy	XWZ3753
	10	5.1CH Assy	XWZ3760
	11	B TO B Assy	XWZ3781
	12	S. VIDEO Assy	XWZ3776
	13	TRANS4 Assy	XWZ3778
	14	PRE-OUT Assy	XWZ3779
	15	DIGITAL IN Assy	XWZ3773
	16	COMPONENT Assy	XWZ3777
	17	FM/AM TUNER UNIT	AXX7170
⚠	18	FU1 Fuse (T3.15A)	REK1027
	19	•••••	
⚠	20	T1 Power Transformer	XTS3083
⚠	21	AC Power Cord	VDG1080
	22	Cord Stopper	CM-22B
	23	J36 23P F.F.C/30V	XDD3102
	24	J46 7P F.F.C/30V	XDD3105
	25	J38 5P F.F.C/30V	XDD3104
	26	J22 3P F.F.C/30V	XDD3107
	27	J33 13P F.F.C/30V	XDD3150
	28	J48 8P F.F.C/30V	XDD3151
	29	J34 11P F.F.C/30V	XDD3149
	30	J43 19P F.F.C/30V	XDD3126
	31	J31 17P F.F.C/30V	XDD3118
	32	J35 19P F.F.C/30V	XDD3101
	33	J37 10P F.F.C/30V	XDD3127
NSP	34	Heatsink R6A CORR	XNH3026
	35	H/S Angle Rear	XNG3095
	36	H/S Angle Front	XNG3094
	37	PCB Angle R5	XNG3073
	38	PCB Mold	AMR2533
NSP	39	Under Base R6	XNA3012
	40	Insulator	PNW2766
	41	DC Fan Motor	XXM3007
	42	Fan Holder R6	XMR3066
	43	REG Support R6	XNG3093
	44	Rear Panel 814K	XNC3247
	45	Bonnet	See Contrast table(2)
NSP	46	HOLDER Assy	XWZ3821
	47	FFC Holder R6	XMR3072
	48	Shield A R6	XNG3068
	49	FFC Cover R6	XMR3060
NSP	50	N Label	See Contrast table(2)
NSP	51	Spacer	AEB7092
	52	Screw	BBZ30P200FTC
	53	Screw 3x23	XBA3012
	54	Screw	FBT40P080FNI
	55	Screw	BBZ30P080FTC
	56	Screw	BBT30P100FCC
	57	Screw	See Contrast table(2)
	58	•••••	
NSP	59	BINDER Assy	XWZ3818
	60	Screw	BPZ30P120FTC
	61	Fuse Card	AAX7493

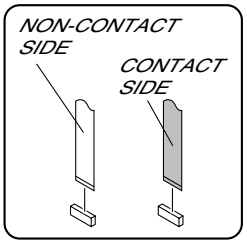
(2) CONTRAST TABLE

VSX-D814-K/MYXJI and VSX-D814-S/MYXJI are constructed the same except for the following :

Mark	No.	Description	VSX-D814-K/MYXJI	VSX-D814-S/MYXJI
	45	Bonnet K V1	XZN3148	Not used
	45	Bonnet S V1	Not used	XZN3149
NSP	50	N Label 814K/MY	XAL3199	Not used
	57	Screw	FBT40P080FZK	FBT40P080FNI

2.3 FRONT PANEL SECTION





FRONT PANEL SECTION Parts List

Mark	No.	Description	Part No.
	1	FRONT DISPLAY ASSY	XWZ3756
	2	R. ENCODER Assy	XWZ3822
	3	P. SW & FUNC. KEY Assy	XWZ3764
	4	FRONT KEY Assy	XWZ3758
	5	H.P. Assy	XWZ3768
	6	F. VIDEO & OPT & MIC Assy	XWZ3771
	7	J29 8P Shield Cable	XDX3022
	8	JOG Knob	See Contrast table(2)
	9	VOL Knob	See Contrast table(2)
	10	Standby BTN V1	See Contrast table(2)
	11	FUNC BTN V1	See Contrast table(2)
	12	Enter BTN V1	See Contrast table(2)
	13	Sub BTN V1	See Contrast table(2)
	14	B Lens R6	XAK3352
	15	Sub Panel	See Contrast table(2)
	16	D Panel MCACC V1	XAK3426
	17	Function Lens V1	XAK3428
	18	Pioneer Badge B	See Contrast table(2)
NSP	19	C Ring DIM 8.1	XBH3016
	20	FRT Panel	See Contrast table(2)
	21	Earth Plate R5 HP	XNG3066
	22	Earth Plate FI V1	XNG3119
	23	J30 5P Shield Cable	XDX3023
	24	J32 5P F.F.C/30V	XDD3125
	25	Screw	BBZ30P080FTC
	26	Screw	BPZ30P100FTC
	27	Input Cover V1	See Contrast table(2)

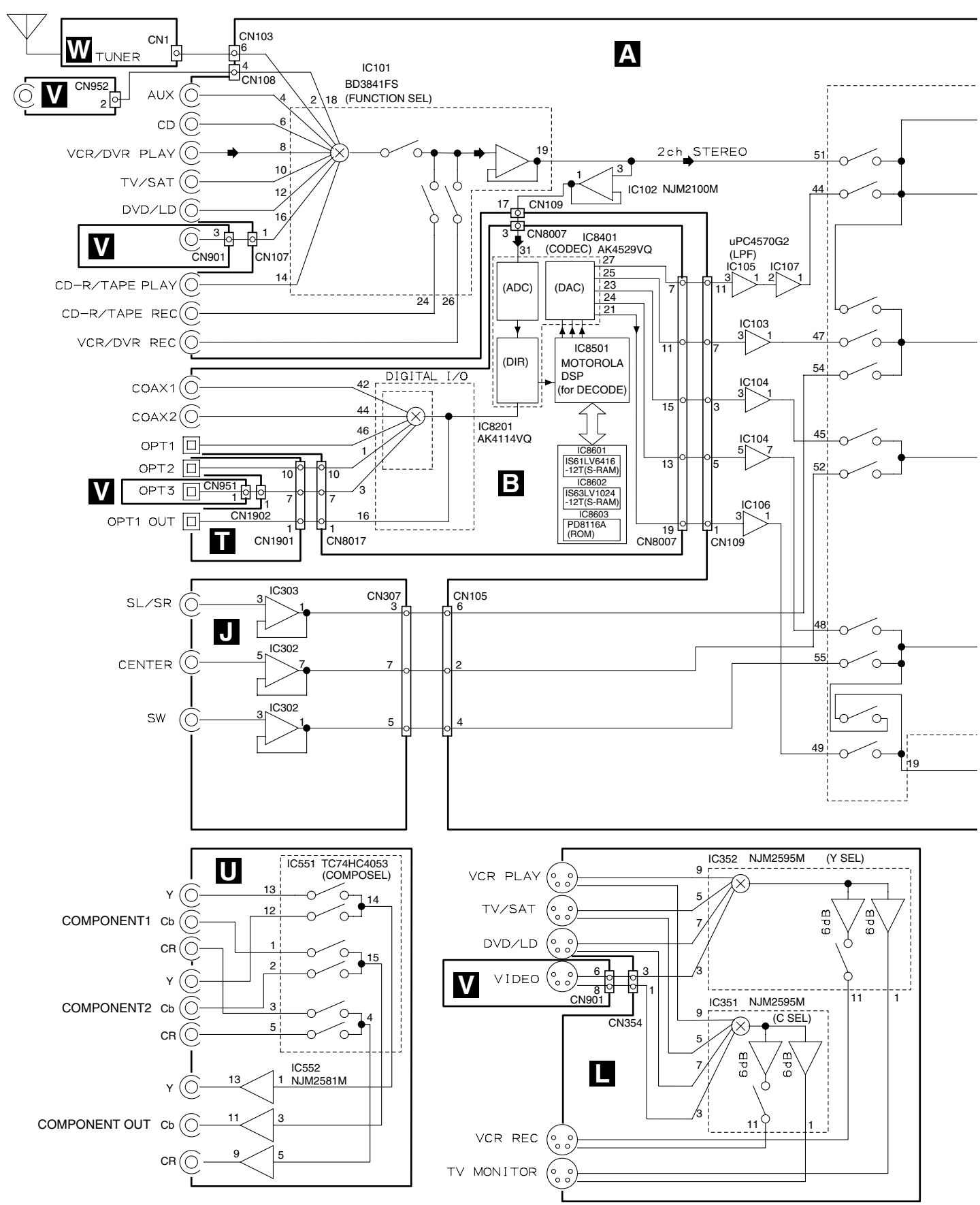
(2) CONTRAST TABLE

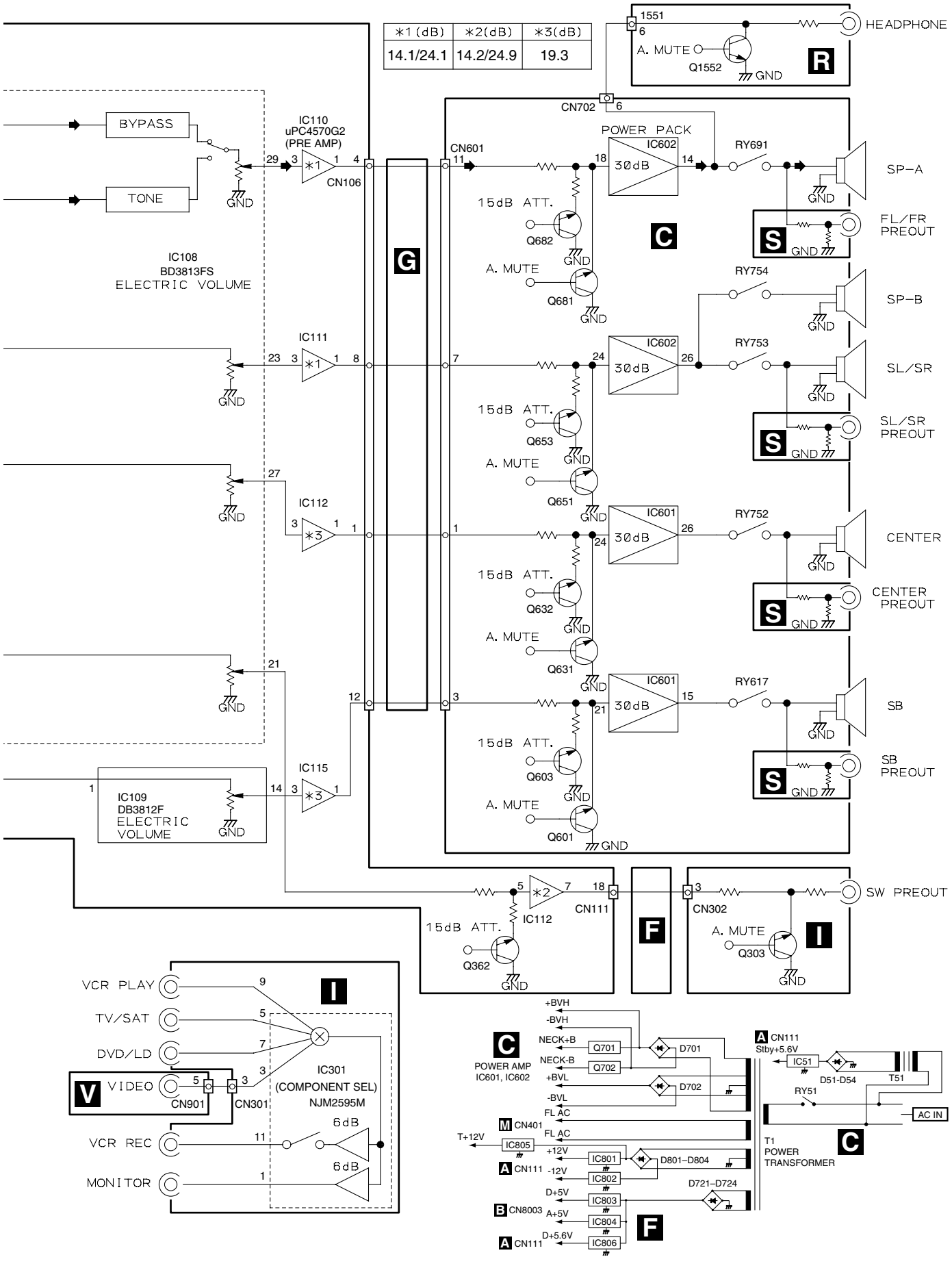
VSX-D814-K/MYXJI and VSX-D814-S/MYXJI are constructed the same except for the following :

Mark	No.	Description	VSX-D814-K/MYXJI	VSX-D814-S/MYXJI
	8	JOG Knob V1K	XAB3038	Not used
	8	JOG Knob V1P	Not used	XAB3040
	9	VOL Knob V1K	XAB3039	Not used
	9	VOL Knob V1P	Not used	XAB3041
	10	Standby BTN V1K	XAD3173	Not used
	10	Standby BTN V1PL	Not used	XAD3191
	11	FUNC BTN V1K	XAD3174	Not used
	11	FUNC BTN V1S	Not used	XAD3180
	12	Enter BTN V1K	XAD3175	Not used
	12	Enter BTN V1S	Not used	XAD3181
	13	Sub BTN V1K	XAD3176	Not used
	13	Sub BTN V1S	Not used	XAD3177
	15	Sub Panel 814K/MY	XAK3440	Not used
	15	Sub Panel 814S/MY	Not used	XAK3430
	18	Pioneer Badge B	XAM3006	VAM1129
	20	FRT Panel 814K/MY	XMB3140	Not used
	20	FRT Panel 814S/MY	Not used	XMB3141
	27	Input Cover V1K	XAK3429	Not used
	27	Input Cover V1P	Not used	XAK3441

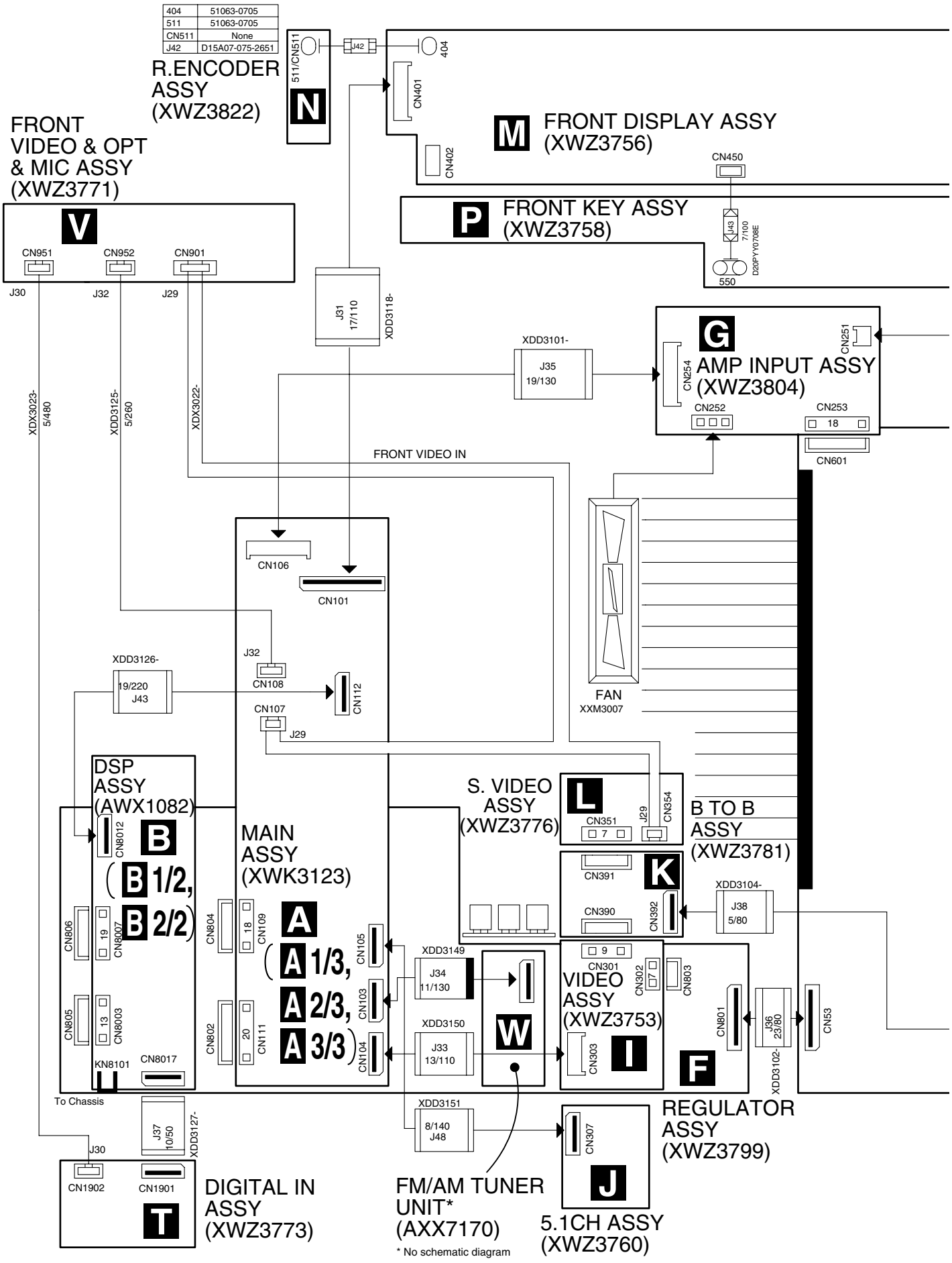
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

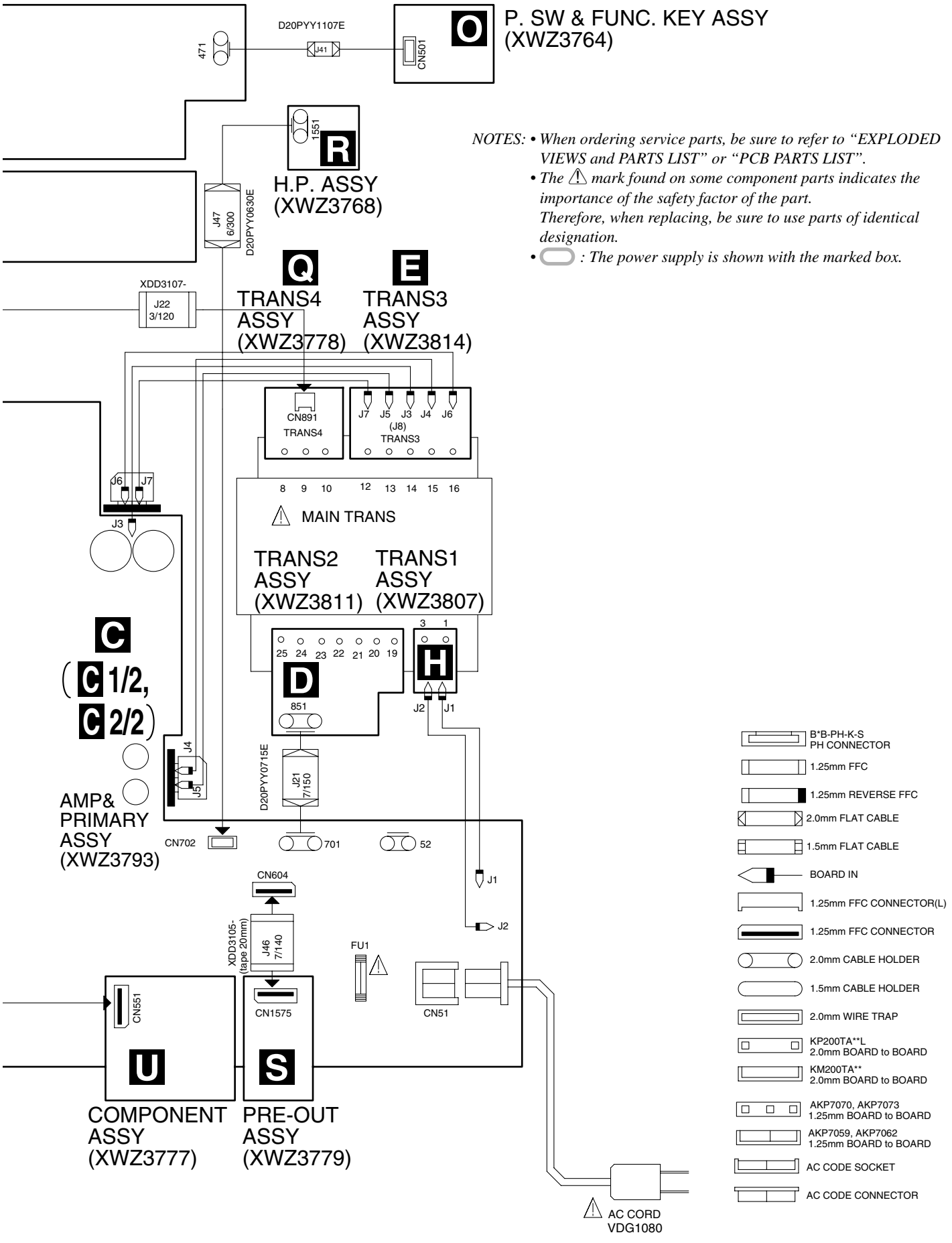
3.1 BLOCK DIAGRAM




∗1 (dB)
∗2(dB)
∗3(dB)
14.1/24.1
14.2/24.9
19.3
1551
HEADPHONE
A. MUTE
Q1552
GND
R
CN702
POWER PACK
IC602
30dB
RY691
SP–A
BYPASS
TONE
IC110
uPC4570G2
(PRE AMP)
CN106
CN601
15dB ATT.
Q682
A. MUTE
Q681
C
S
FL/FR
PREOUT
G
IC108
BD3813FS
ELECTRIC VOLUME
RY754
SP–B
IC111
IC602
RY753
SL/SR
SL/SR
PREOUT
15dB ATT.
Q653
A. MUTE
Q651
IC112
IC601
RY752
CENTER
CENTER
PREOUT
15dB ATT.
Q632
A. MUTE
Q631
IC601
RY617
SB
SB
PREOUT
15dB ATT.
Q603
A. MUTE
Q601
IC109
DB3812F
ELECTRIC
VOLUME
IC115
CN111
IC112
15dB ATT.
Q362
F
CN302
A. MUTE
Q303
I
SW PREOUT
VCR PLAY
TV/SAT
DVD/LD
VIDEO
CN901
CN301
IC301
(COMPONENT SEL)
NJM2595M
6dB
VCR REC
MONITOR
V
C
POWER AMP
IC601, IC602
+BVH
-BVH
NECK+B
NECK-B
+BVL
-BVL
FL AC
Q701
Q702
D701
D702
M CN401
T+12V
IC805
+12V
-12V
IC801
IC802
D801–D804
D+5V
A+5V
D+5.6V
IC803
IC804
IC806
B CN8003
A CN111
D721–D724
A CN111
Stby+5.6V
IC51
D51-D54
T51
RY51
AC IN
T1
POWER
TRANSFORMER

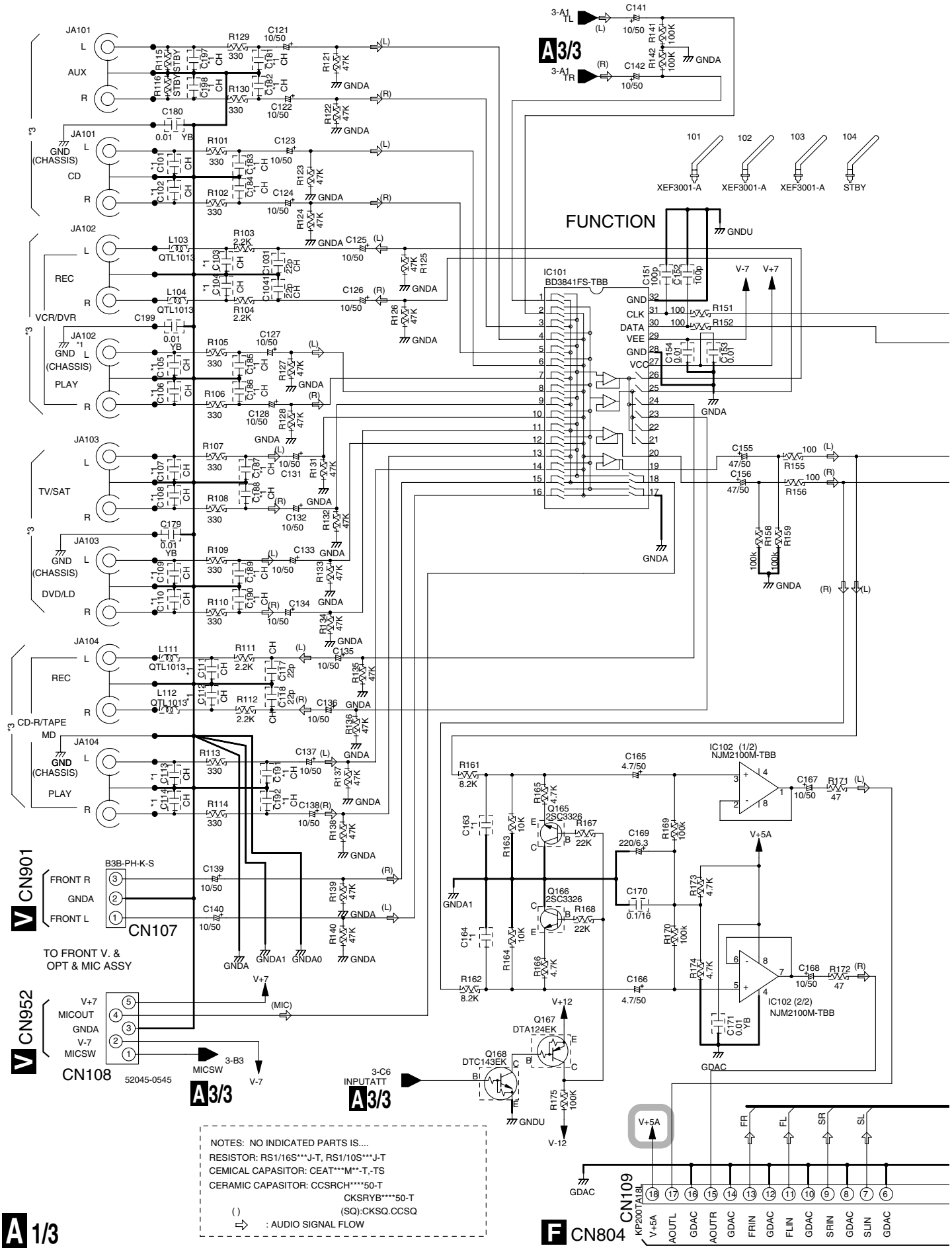
3.2 OVERALL WIRING CONNECTION DIAGRAM

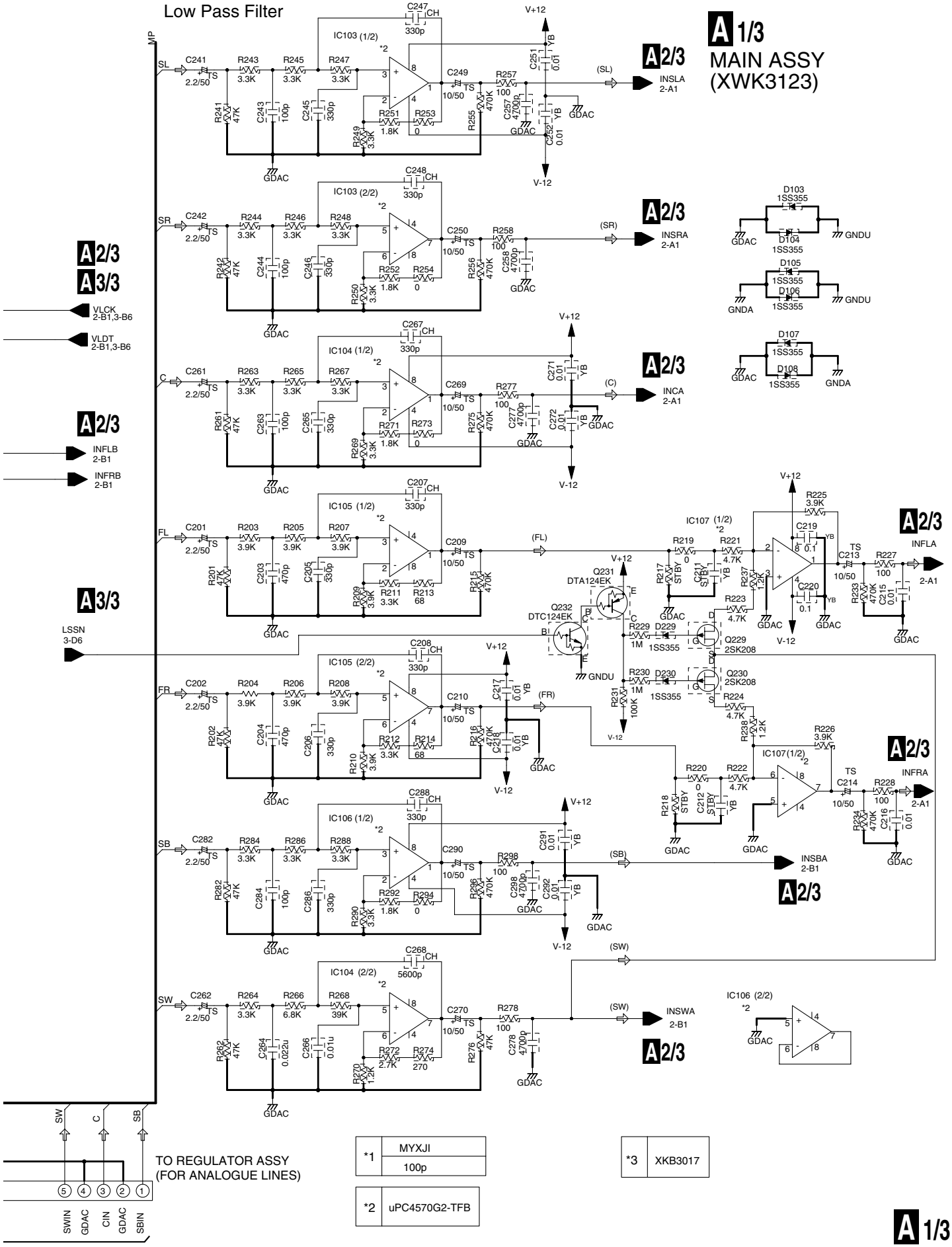




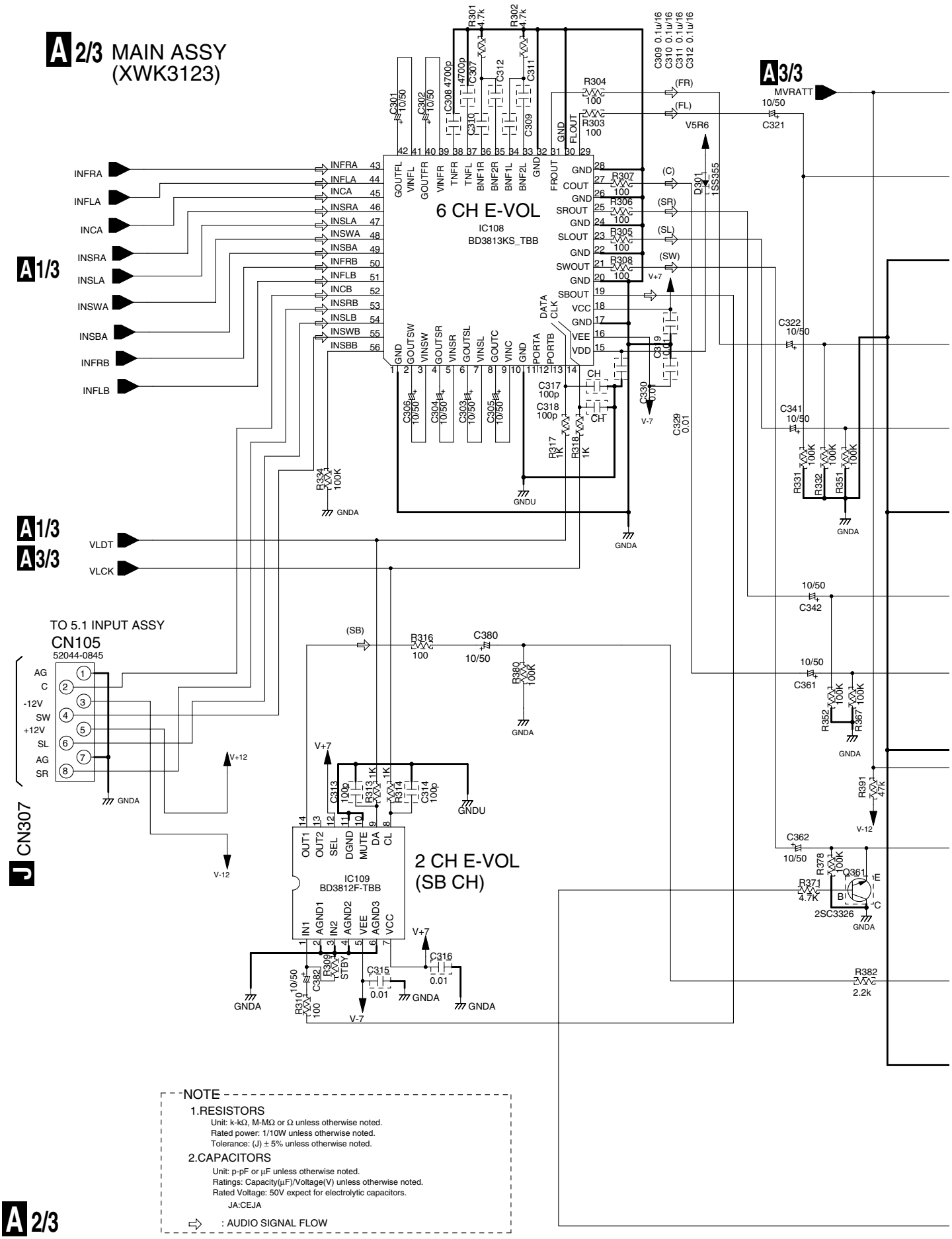
NOTES:
- *When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *: The power supply is shown with the marked box.*

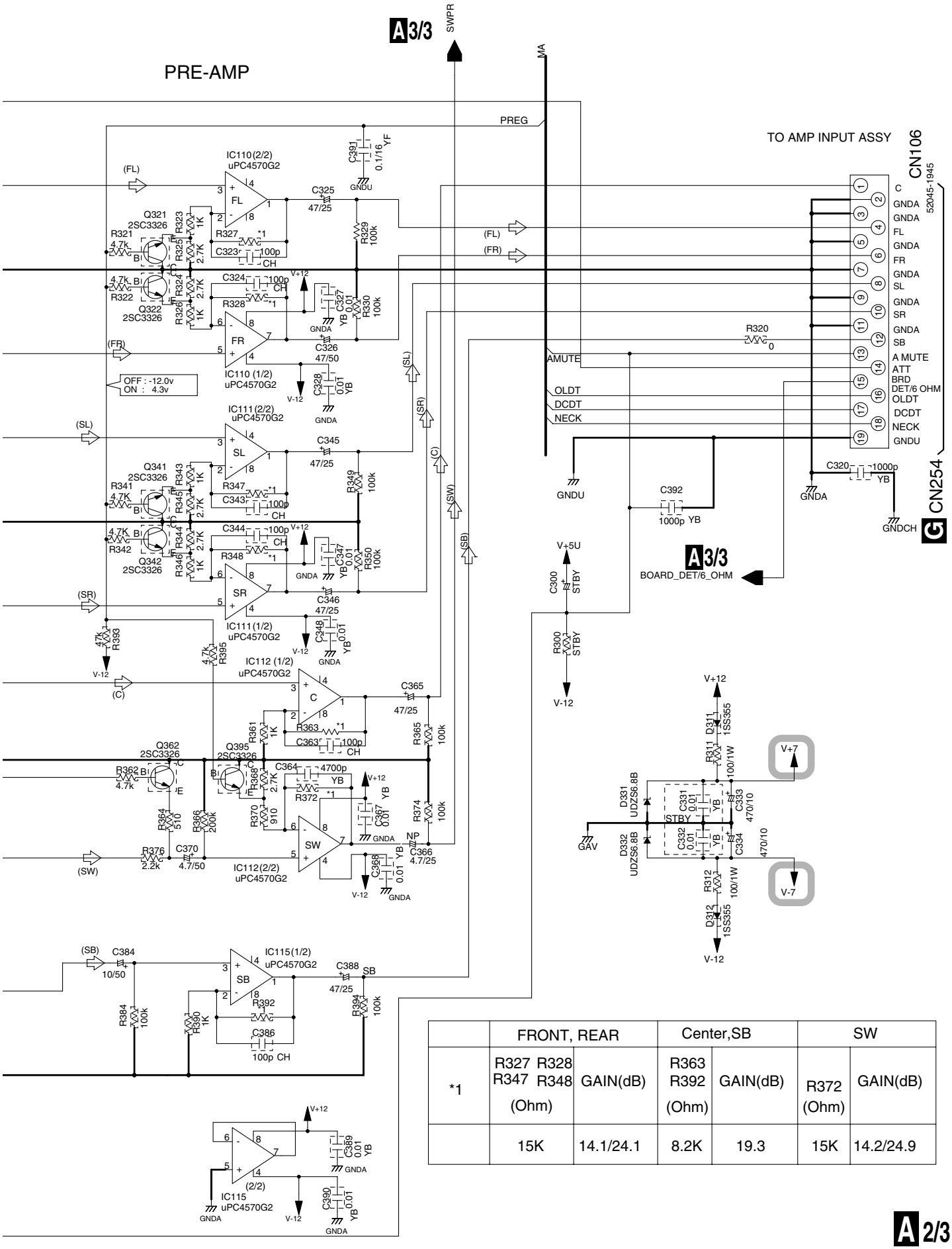
3.3 MAIN ASSY (1/3)




Low Pass Filter
A 1/3
MAIN ASSY
(XWK3123)
IC103 (1/2)
IC103 (2/2)
IC104 (1/2)
IC104 (2/2)
IC105 (1/2)
IC105 (2/2)
IC106 (1/2)
IC106 (2/2)
IC107 (1/2)
IC107(1/2)
SL
SR
C
FL
FR
SB
SW
INSLA 2-A1
INSRA 2-A1
INCA 2-A1
INFLA 2-A1
INFRA 2-A1
INSBA 2-B1
INSWA 2-B1
VLCK 2-B1,3-B6
VLDT 2-B1,3-B6
INFLB 2-B1
INFRB 2-B1
LSSN 3-D6
Q231 DTA124EK
Q232 DTC124EK
Q229 2SK208
Q230 2SK208
D103 1SS355
D104 1SS355
D105 1SS355
D106 1SS355
D107 1SS355
D108 1SS355
V+12
V-12
GDAC
GNDU
GNDA
TO REGULATOR ASSY
(FOR ANALOGUE LINES)
SWIN
GDAC
CIN
GDAC
SBIN
*1 MYXJI 100p
*2 uPC4570G2-TFB
*3 XKB3017

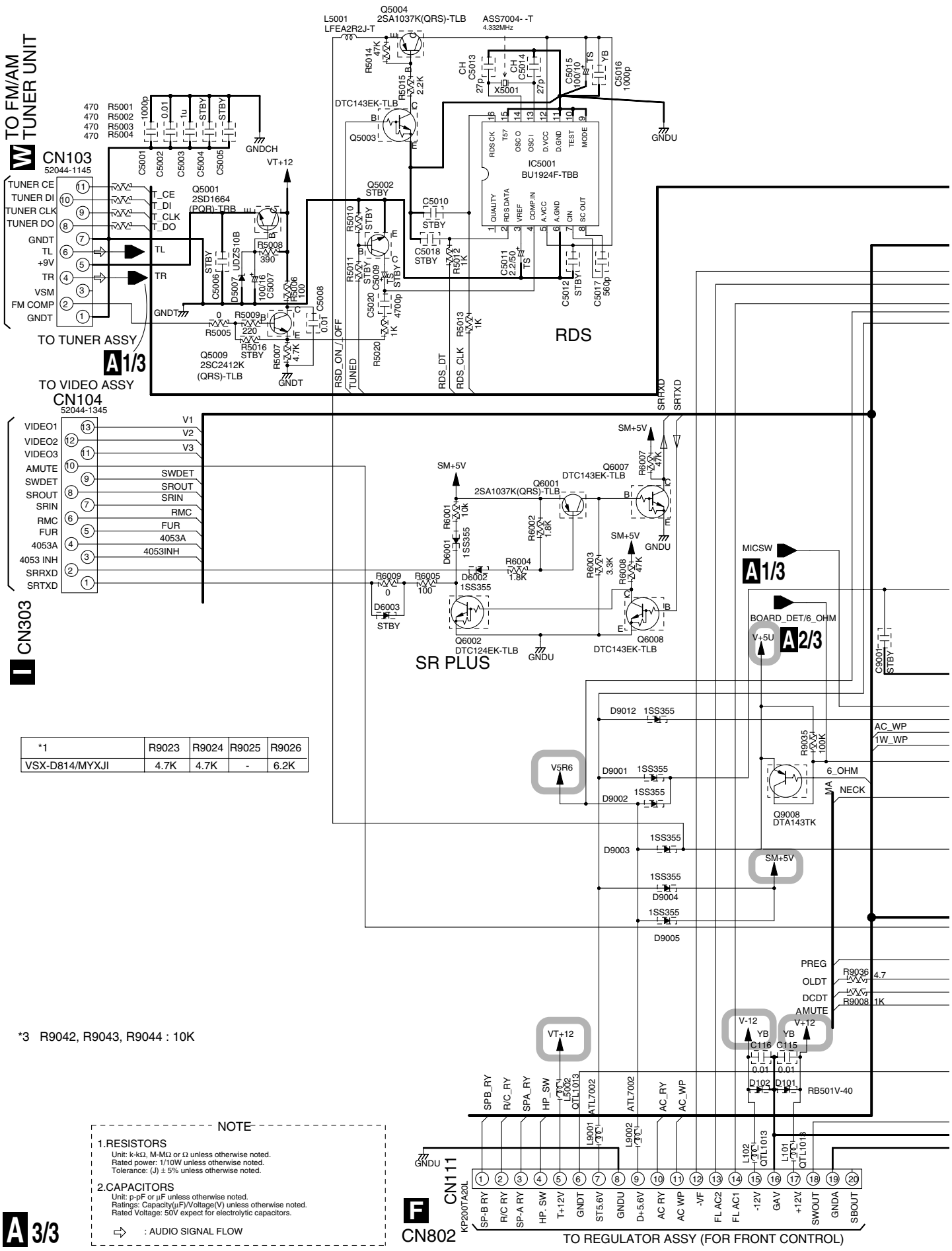
3.4 MAIN ASSY (2/3)





	FRONT, REAR		Center,SB		SW	
*1	R327 R328 R347 R348 (Ohm)	GAIN(dB)	R363 R392 (Ohm)	GAIN(dB)	R372 (Ohm)	GAIN(dB)
	15K	14.1/24.1	8.2K	19.3	15K	14.2/24.9

3.5 MAIN ASSY (3/3)



*1	R9023	R9024	R9025	R9026
VSX-D814/MYXJI	4.7K	4.7K	-	6.2K

*3 R9042, R9043, R9044 : 10K

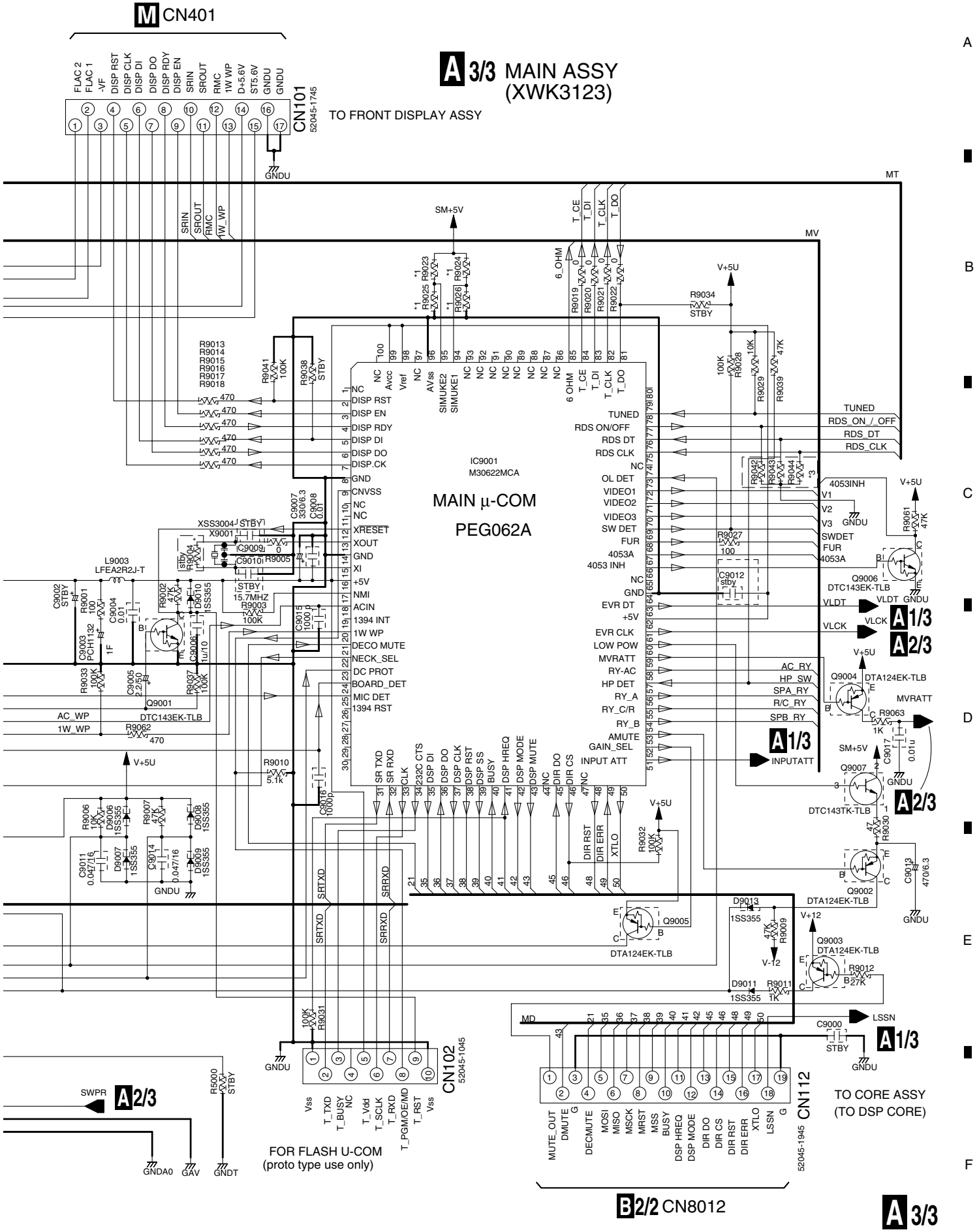
NOTE

1.RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ± 5% unless otherwise noted.

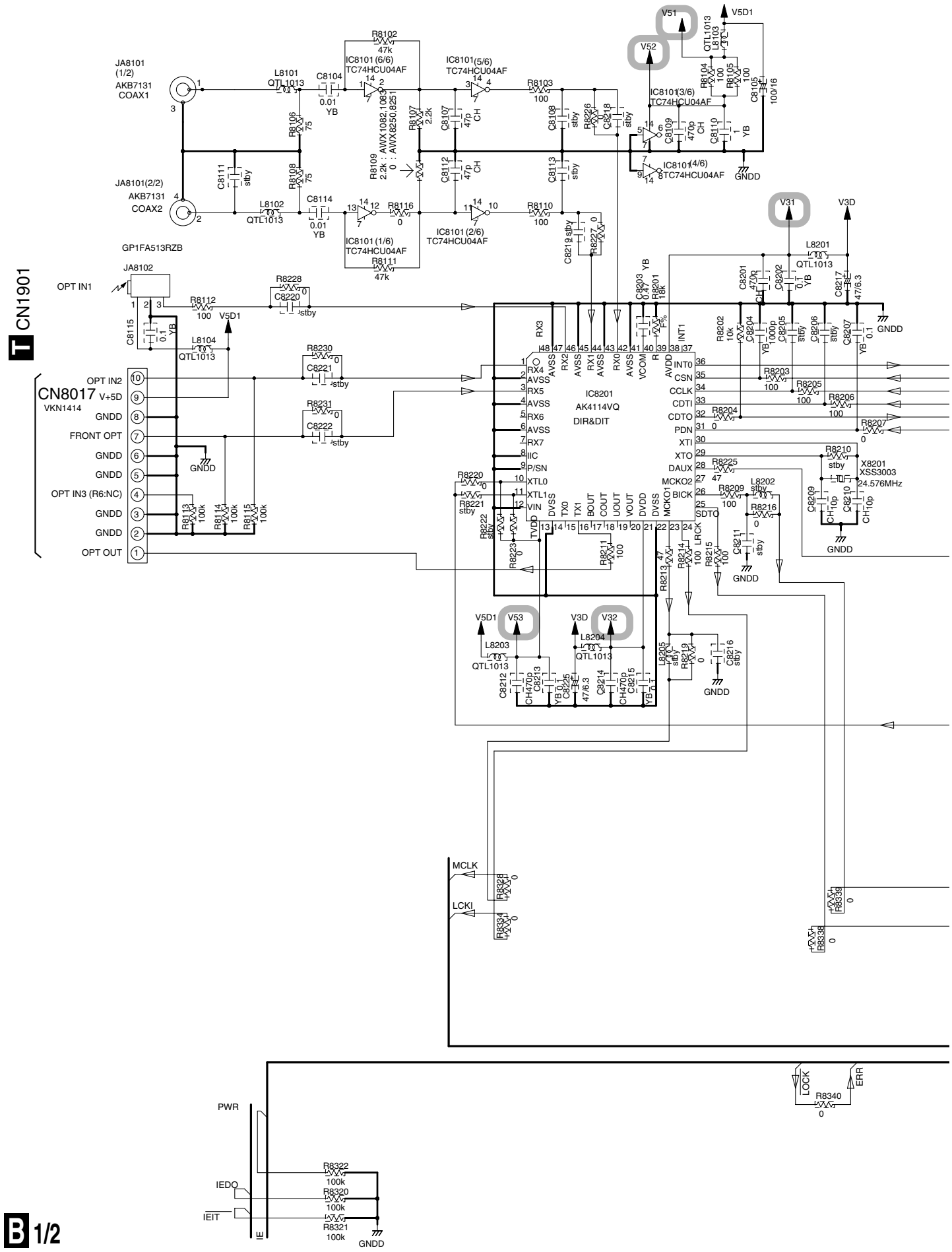
2.CAPACITORS
Unit: p-pF or µF unless otherwise noted.
Ratings: Capacity(µF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.

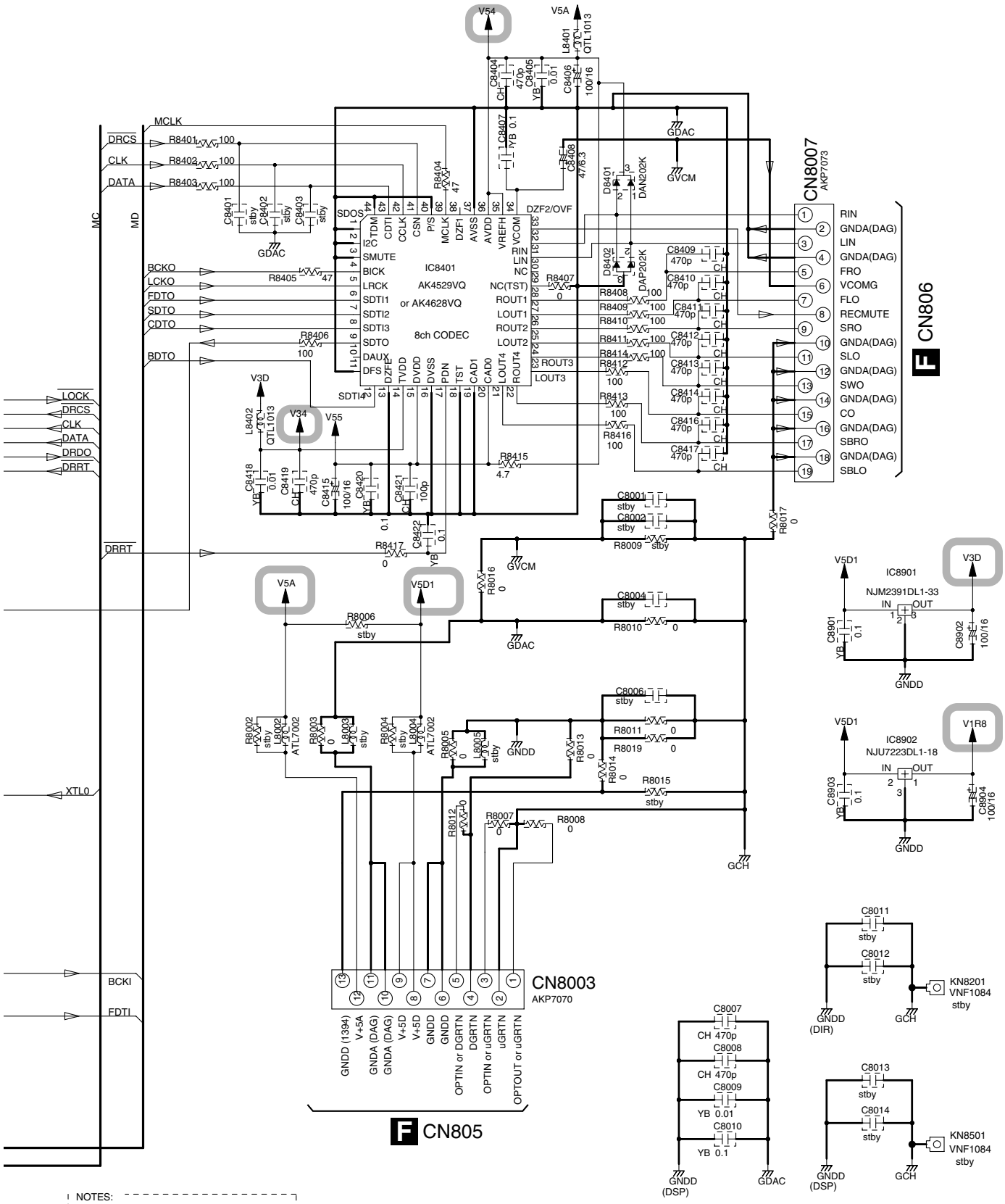
⇨ : AUDIO SIGNAL FLOW

A 3/3


M CN401
A 3/3 MAIN ASSY
(XWK3123)
TO FRONT DISPLAY ASSY
CN101
52045-1745
FLAC 2
FLAC 1
-VF
DISP RST
DISP CLK
DISP DI
DISP DO
DISP RDY
DISP EN
SRIN
SROUT
RMC
1W WP
D+5.6V
ST5.6V
GNDU
GNDU
SRIN
SROUT
RMC
1W_WP
SM+5V
T_CE
T_DI
T_CLK
T_DO
MT
MV
6_OHM
V+5U
R9034
STBY
R9013
R9014
R9015
R9016
R9017
R9018
R9041
100K
R9038
STBY
IC9001
M30622MCA
MAIN µ-COM
PEG062A
NC
DISP RST
DISP EN
DISP RDY
DISP DI
DISP DO
DISP.CK
GND
CNVSS
NC
NC
XRESET
XOUT
GND
XI
+5V
NMI
ACIN
1394 INT
1W WP
DECO MUTE
NECK_SEL
DC PROT
BOARD_DET
MIC DET
1394 RST
SR TXD
SR RXD
CLK
232C CTS
DSP DI
DSP DO
DSP CLK
DSP RST
DSP SS
BUSY
DSP HREQ
DSP MODE
DSP MUTE
NC
DIR DO
DIR CS
NC
INPUT ATT
DIR RST
DIR ERR
XTLO
TUNED
RDS ON/OFF
RDS DT
RDS CLK
NC
OL DET
VIDEO1
VIDEO2
VIDEO3
SW DET
FUR
4053A
4053 INH
NC
GND
EVR DT
+5V
EVR CLK
LOW POW
MVRATT
RY-AC
HP DET
RY_A
RY_C/R
RY_B
AMUTE
GAIN_SEL
TUNED
RDS_ON_/_OFF
RDS_DT
RDS_CLK
4053INH
V1
V2
V3
SWDET
FUR
4053A
VLDT
VLCK
AC_RY
HP_SW
SPA_RY
R/C_RY
SPB_RY
INPUTATT
A 1/3
A 2/3
XSS3004
X9001
15.7MHZ
L9003
LFEA2R2J-T
Q9001
DTC143EK-TLB
AC_WP
1W_WP
R9062
470
Q9004
DTA124EK-TLB
Q9006
DTC143EK-TLB
Q9007
DTC143TK-TLB
Q9002
DTA124EK-TLB
Q9005
DTA124EK-TLB
Q9003
DTA124EK-TLB
MVRATT
SM+5V
V+12
V-12
R9063
1K
R9030
47
R9012
27K
R9011
1K
D9011
1SS355
D9013
1SS355
R9009
47K
R9032
100K
R9031
100K
R5000
STBY
SWPR
A 2/3
GNDA0
GAV
GNDT
CN102
52045-1045
Vss
T_TXD
T_BUSY
NC
T_Vdd
T_SCLK
T_RXD
T_PGM/OE/MD
T_RST
Vss
FOR FLASH U-COM
(proto type use only)
MD
LSSN
C9000
STBY
CN112
MUTE_OUT
DMUTE
G
DECMUTE
MOSI
MISO
MSCK
MRST
MSS
BUSY
DSP HREQ
DSP MODE
DIR DO
DIR CS
DIR RST
DIR ERR
XTLO
LSSN
G
52045-1945
TO CORE ASSY
(TO DSP CORE)
B 2/2 CN8012
A 3/3

3.6 DSP ASSY (1/2)





NOTES:

NO INDICATED PARTS IS...

CCSRCH****50-T
CKSRYB****50-T
CKSRYB333K16-T
CKSRYB104K16-T
CKSRYB105K6R3-T

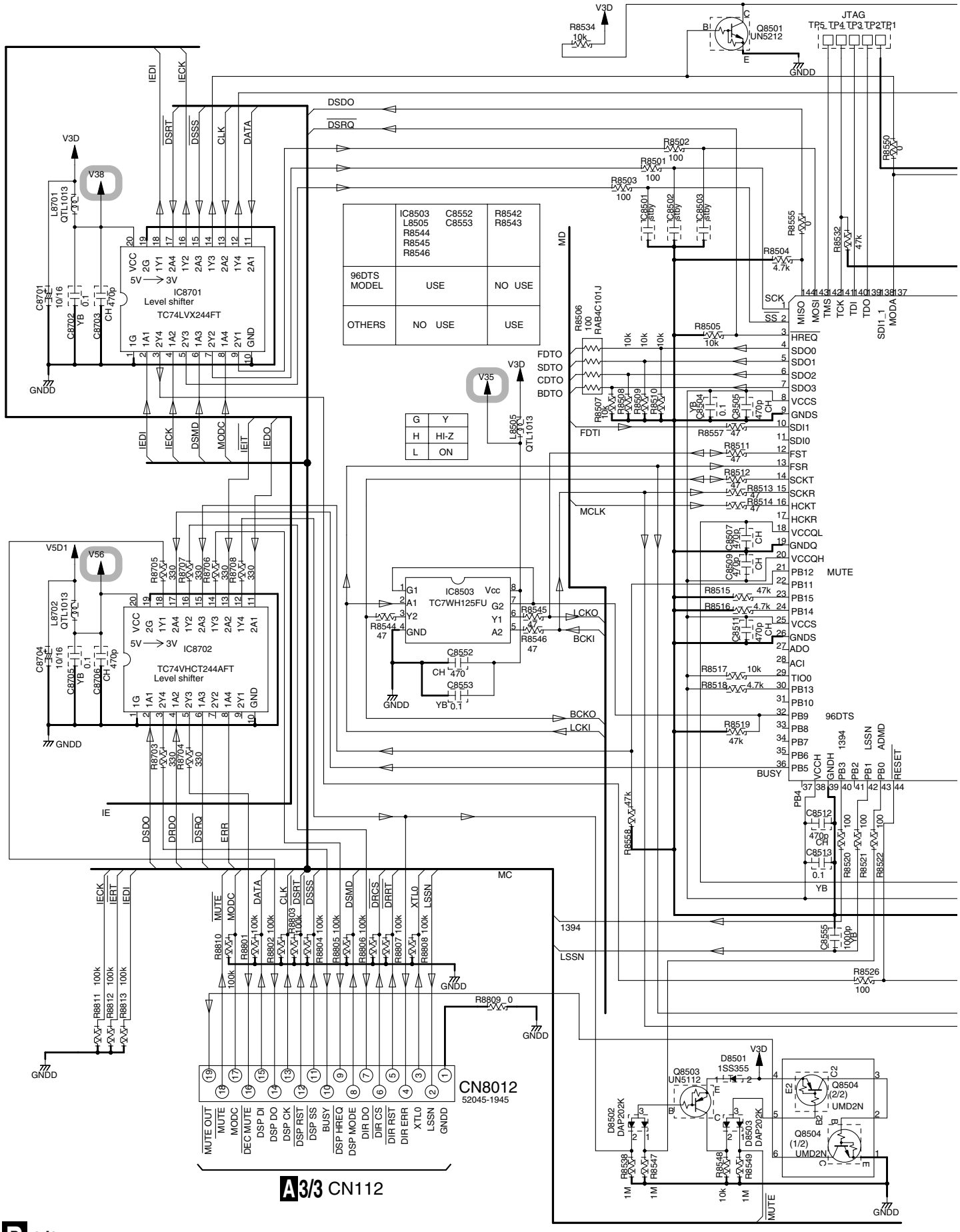
CEV***M***-T

RS1/16S***J-T

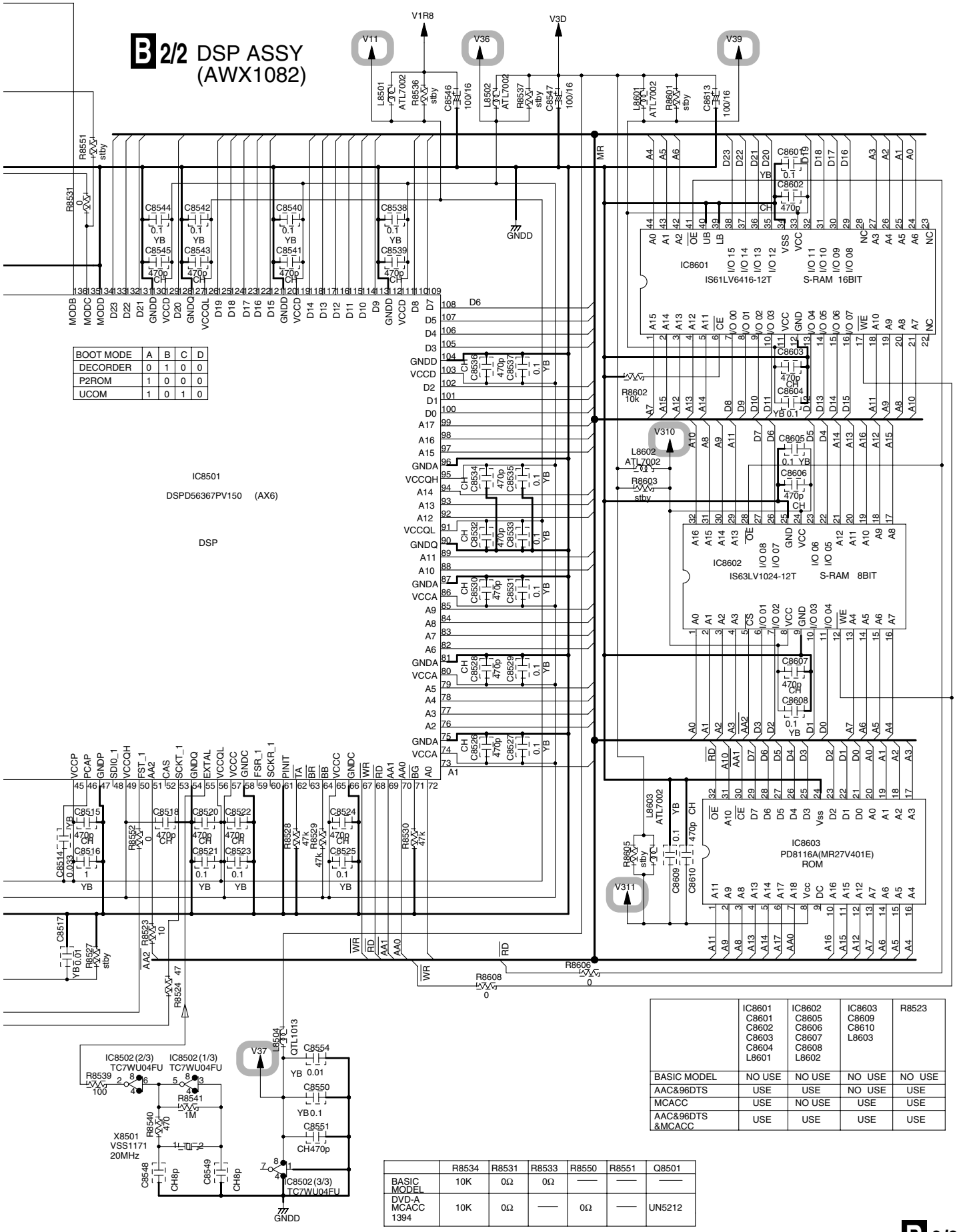
UNLESS OTHERWISE NOTED

B 1/2 DSP ASSY
(AWX1082)

3.7 DSP ASSY (2/2)



B 2/2 DSP ASSY (AWX1082)



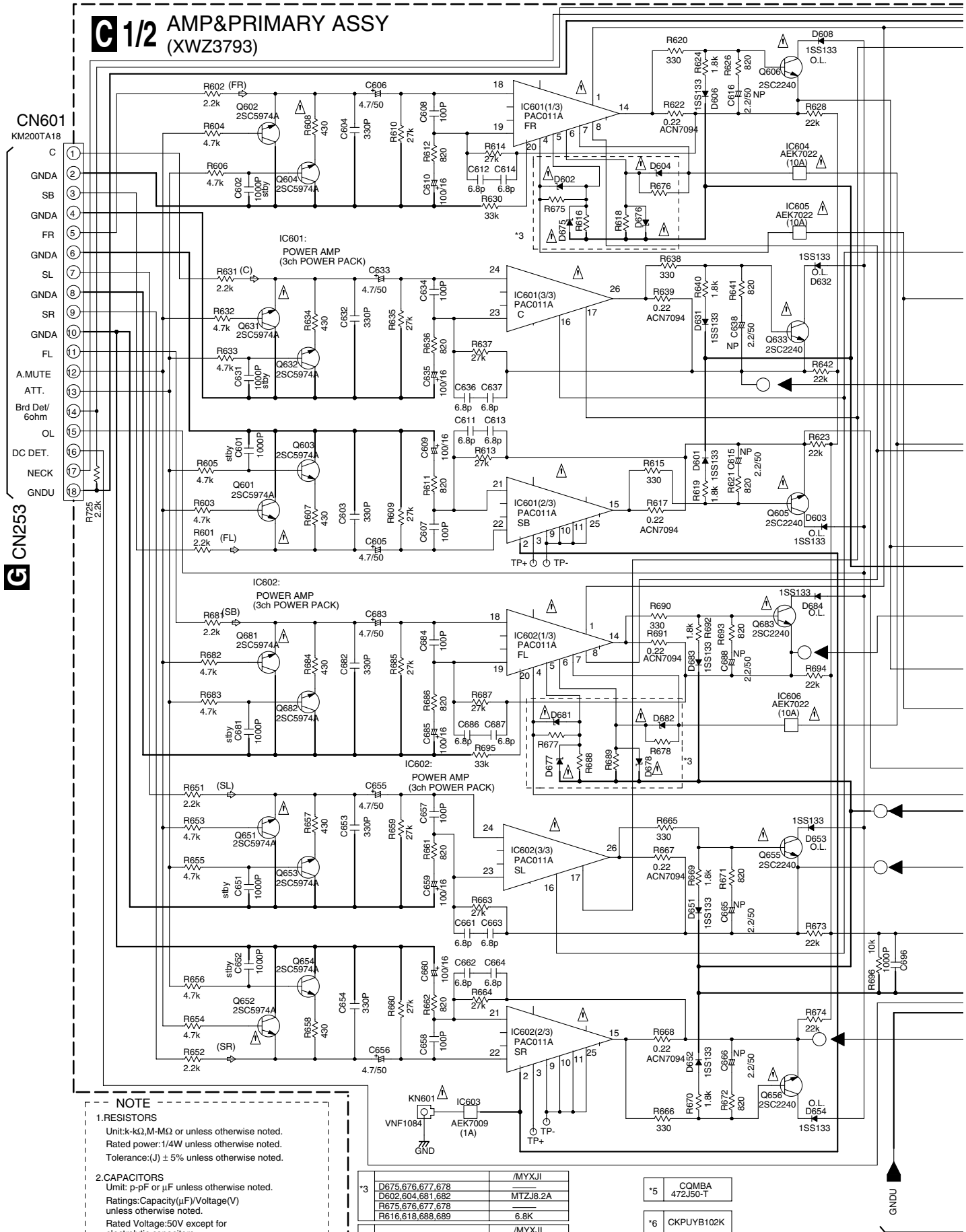
BOOT MODE	A	B	C	D
DECORDER	0	1	0	0
P2ROM	1	0	0	0
UCOM	1	0	1	0

	IC8601 C8601 C8602 C8603 C8604 L8601	IC8602 C8605 C8606 C8607 C8608 L8602	IC8603 C8609 C8610 L8603	R8523
BASIC MODEL	NO USE	NO USE	NO USE	NO USE
AAC&96DTS	USE	USE	NO USE	USE
MCACC	USE	NO USE	USE	USE
AAC&96DTS &MCACC	USE	USE	USE	USE

	R8534	R8531	R8533	R8550	R8551	Q8501
BASIC MODEL	10K	0Ω	0Ω	—	—	—
DVD-A MCACC 1394	10K	0Ω	—	0Ω	—	UN5212

B 2/2

3.8 AMP & PRIMARY (1/2), TRANS2 and TRANS3 ASSYS



NOTE

1.RESISTORS
Unit:k-kΩ,M-MΩ or unless otherwise noted.
Rated power:1/4W unless otherwise noted.
Tolerance:(J) ± 5% unless otherwise noted.

2.CAPACITORS
Umit: p-pF or μF unless otherwise noted.
Ratings:Capacity(μF)/Voltage(V) unless otherwise noted.
Rated Voltage:50V except for electrolytic capacitors.

3.DIODES
Indicated in 1SS133-T

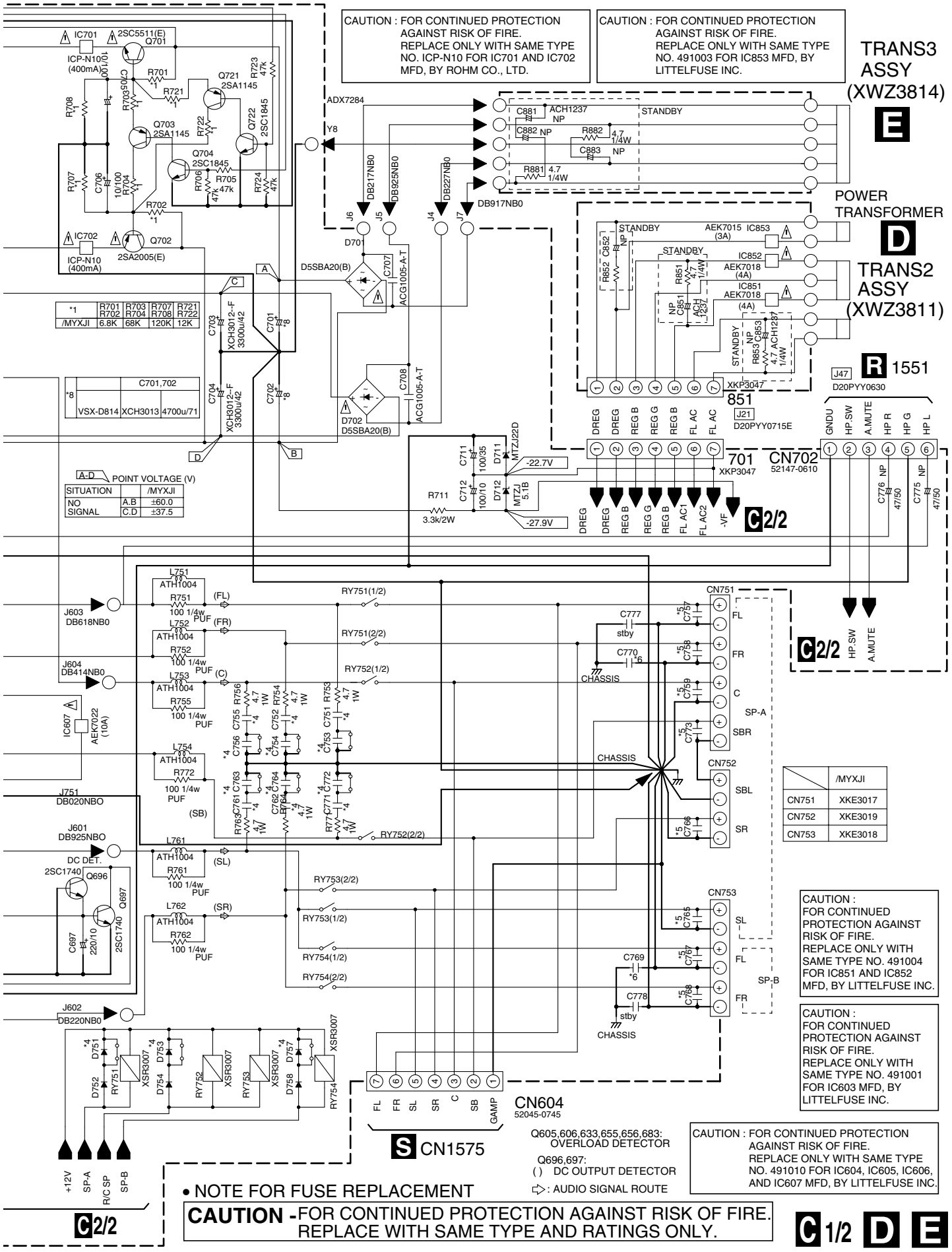
*3		/MYXJI
	D675,676,677,678	——
	D602,604,681,682	MTZJ8.2A
	R675,676,677,678	——
	R616,618,688,689	6.8K

*4		/MYXJI
	C751,752,755,761,762,771	0.22 BA
	C753,754,756,763,764,772	0.22 BA
	D751,753,757	1SS133-T

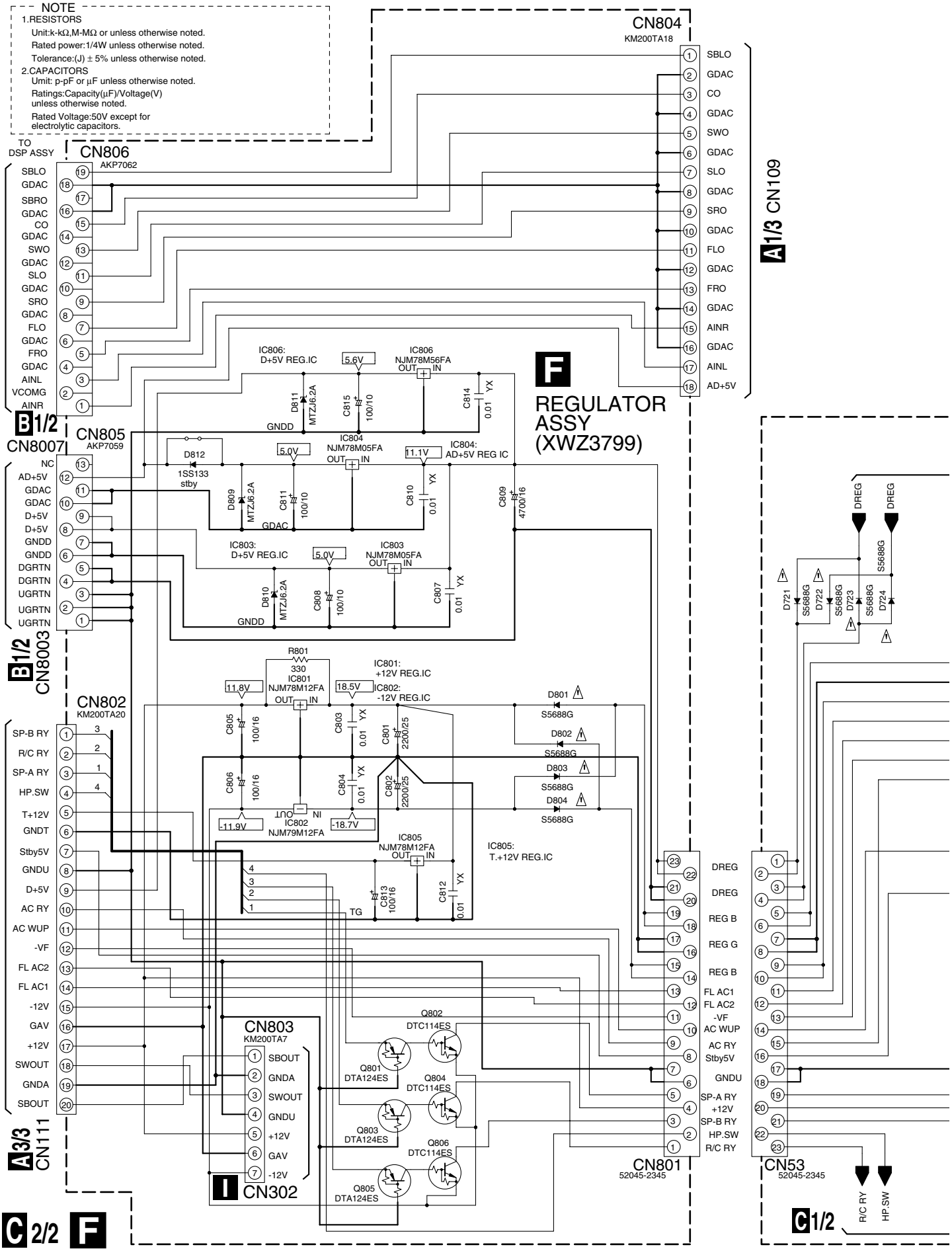
*5	CQMBA 472J50-T

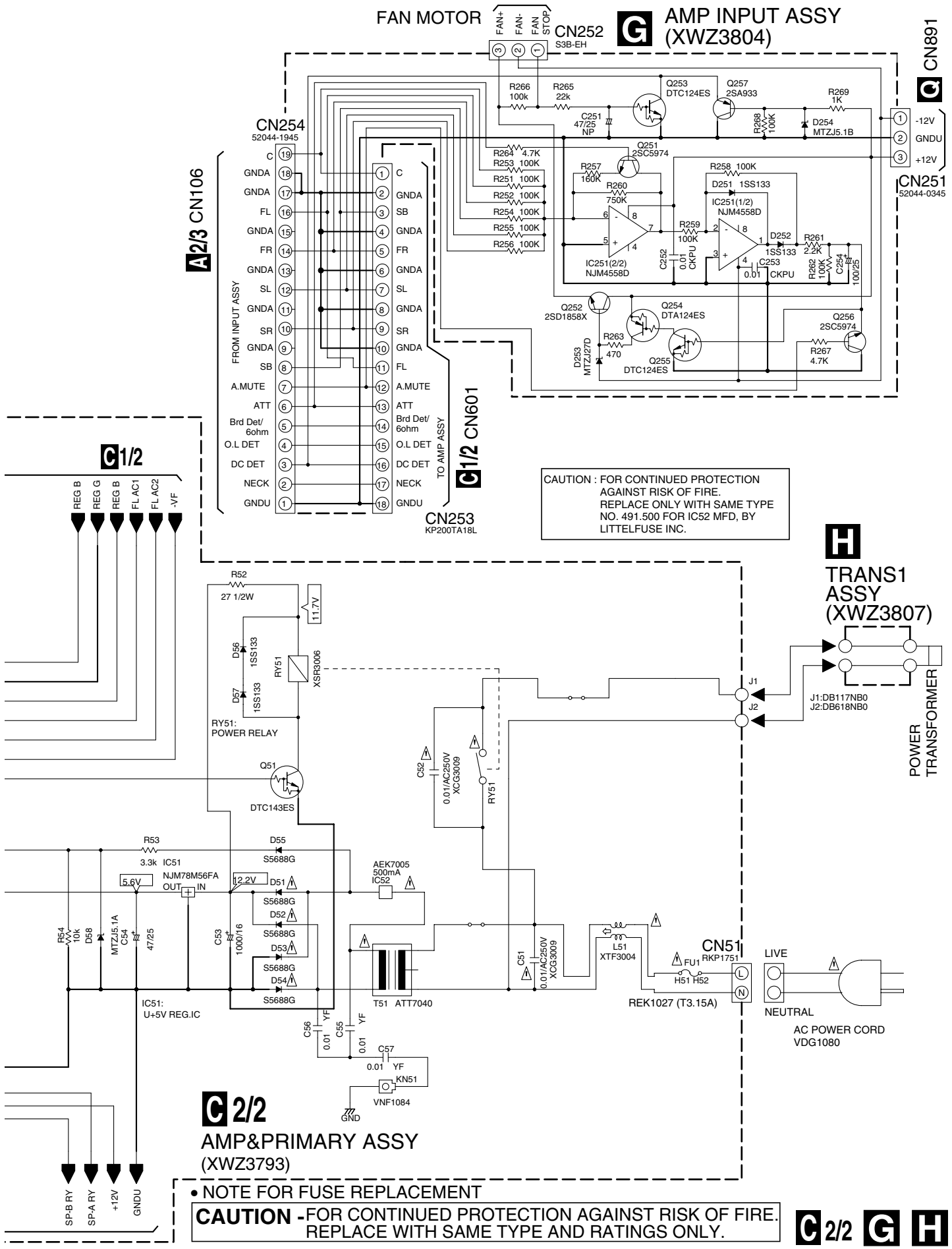
*6	CKPUYB102K

C 1/2

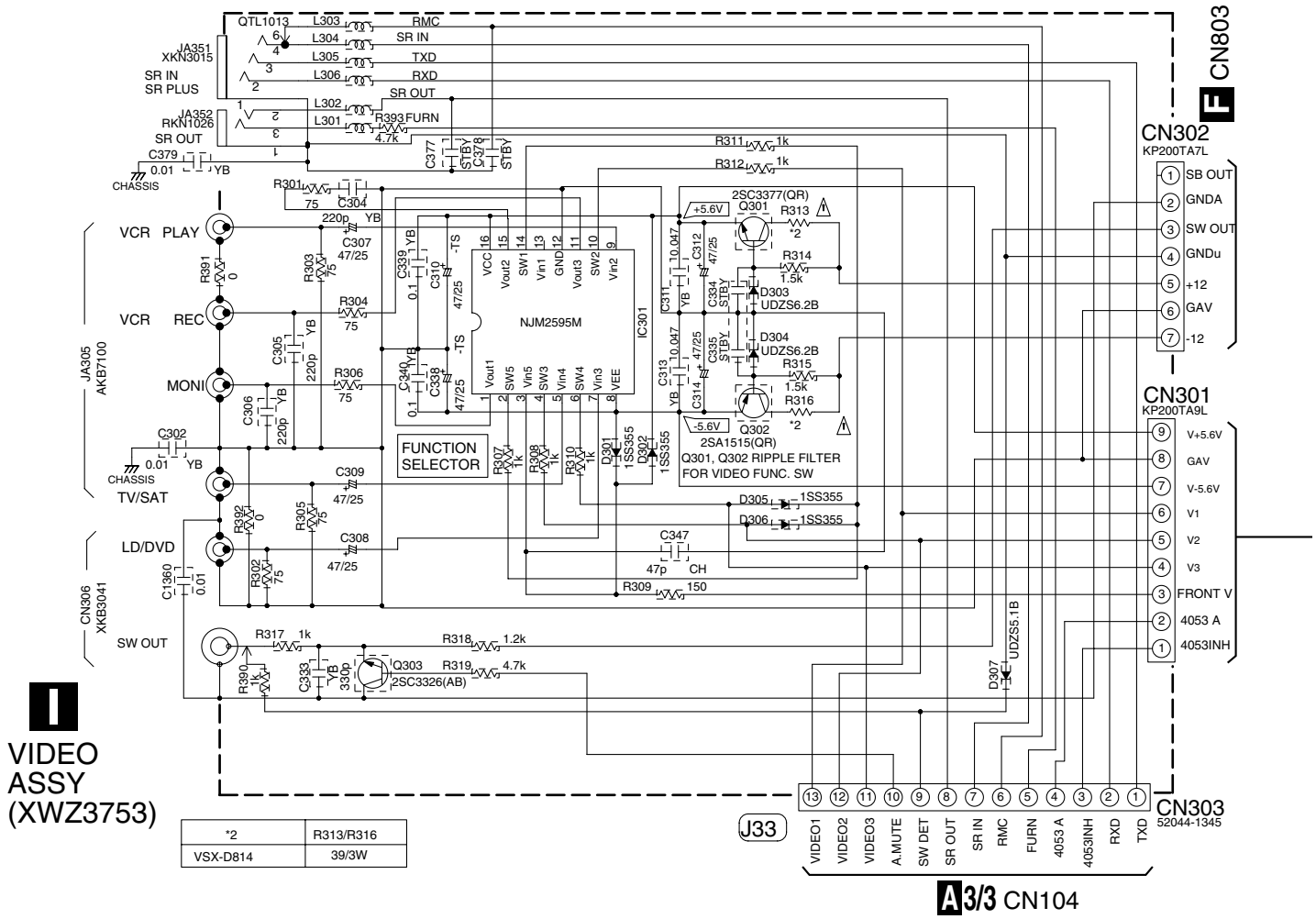

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N10 FOR IC701 AND IC702 MFD, BY ROHM CO., LTD.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491003 FOR IC853 MFD, BY LITTELFUSE INC.
TRANS3 ASSY (XWZ3814)
E
POWER TRANSFORMER
D
TRANS2 ASSY (XWZ3811)
R 1551
CN702 52147-0610
CN751
CN752
CN753
CN604 52045-0745
S CN1575
C2/2
C1/2 D E
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491004 FOR IC851 AND IC852 MFD, BY LITTELFUSE INC.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491001 FOR IC603 MFD, BY LITTELFUSE INC.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491010 FOR IC604, IC605, IC606, AND IC607 MFD, BY LITTELFUSE INC.
Q605,606,633,655,656,683: OVERLOAD DETECTOR
Q696,697: ( ) DC OUTPUT DETECTOR
: AUDIO SIGNAL ROUTE
• NOTE FOR FUSE REPLACEMENT
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

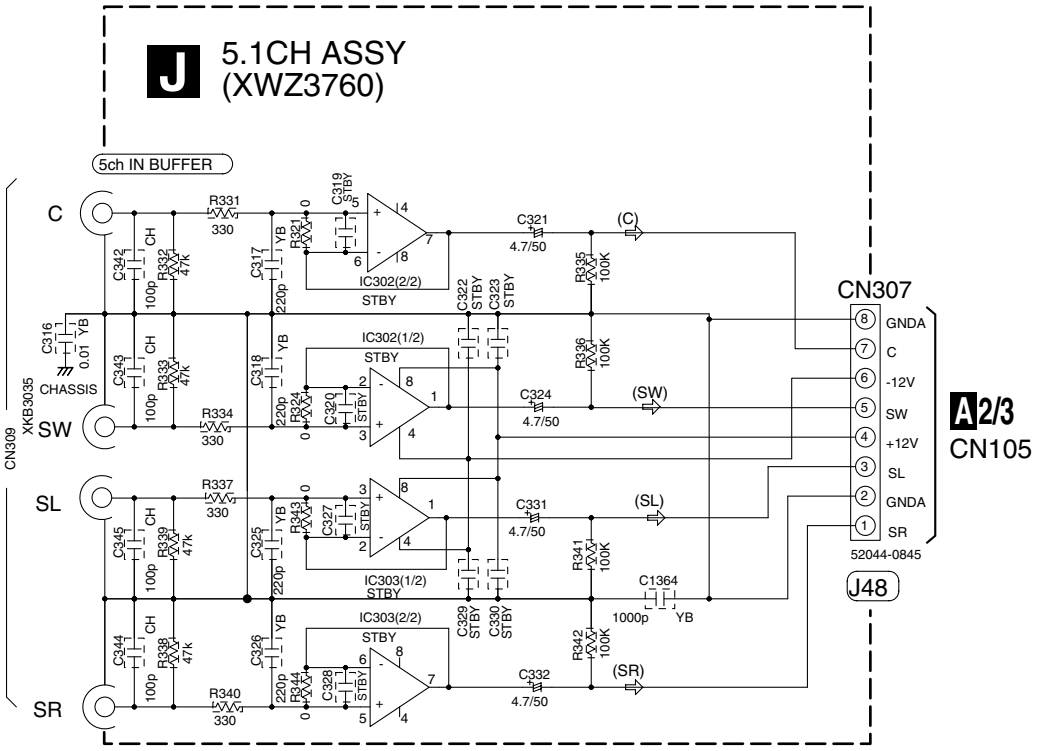
3.9 AMP & PRIMARY (2/2), REG. , AMP INPUT and TRANS1 ASSYS




FAN MOTOR
FAN+
FAN-
FAN STOP
CN252
S3B-EH
G AMP INPUT ASSY
(XWZ3804)
CN891
Q
-12V
GNDU
+12V
CN251
52044-0345
CN254
52044-1945
A2/3 CN106
FROM INPUT ASSY
C
GNDA
GNDA
FL
GNDA
FR
GNDA
SL
GNDA
SR
GNDA
SB
A.MUTE
ATT
Brd Det/ 6ohm
O.L DET
DC DET
NECK
GNDU
C1/2 CN601
TO AMP ASSY
CN253
KP200TA18L
R266 100k
R265 22k
C251 47/25 NP
Q253 DTC124ES
Q257 2SA933
R269 1K
R268 100K
D254 MTZJ5.1B
R264 4.7K
R253 100K
R251 100K
R252 100K
R254 100K
R255 100K
R256 100K
Q251 2SC5974
R257 160K
R260 750K
R258 100K
D251 1SS133
IC251(1/2) NJM4558D
IC251(2/2) NJM4558D
R259 100K
C252 0.01 CKPU
C253 0.01 CKPU
D252 1SS133
R261 2.2K
R262 100K
C254 100/25
Q252 2SD1858X
Q254 DTA124ES
R263 470
D253 MTZJ27D
Q255 DTC124ES
Q256 2SC5974
R267 4.7K
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.500 FOR IC52 MFD, BY LITTELFUSE INC.
C1/2
REG B
REG G
REG B
FL AC1
FL AC2
-VF
H
TRANS1 ASSY (XWZ3807)
J1
J2
J1:DB117NB0
J2:DB618NB0
POWER TRANSFORMER
R52
27 1/2W
11.7V
D56 1SS133
D57 1SS133
RY51
XSR3006
RY51: POWER RELAY
Q51
DTC143ES
C52 0.01/AC250V XCG3009
RY51
C51 0.01/AC250V XCG3009
L51 XTF3004
CN51 RKP1751
FU1
H51 H52
REK1027 (T3.15A)
LIVE
NEUTRAL
AC POWER CORD VDG1080
R53 3.3k
IC51 NJM78M56FA
5.6V
OUT
IN
12.2V
D55 S5688G
D51 S5688G
D52 S5688G
D53 S5688G
D54 S5688G
AEK7005 500mA IC52
R54 10k
D58 MTZJ5.1A
C54 47/25
C53 1000/16
IC51: U+5V REG.IC
T51 ATT7040
C56 0.01 YF
C55 0.01 YF
C57 0.01 YF
KN51
VNF1084
GND
C 2/2
AMP&PRIMARY ASSY
(XWZ3793)
SP-B RY
SP-A RY
+12V
GNDU
• NOTE FOR FUSE REPLACEMENT
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.
C 2/2 G H

3.10 VIDEO, 5.1CH, B TO B and S. VIDEO ASSYS





I J

NOTE

1.RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ± 5% unless otherwise noted.

2.CAPACITORS
Unit: p-pF or µF unless otherwise noted.
Ratings: Capacity(µF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.

NJM2595M control port status

SW1	SW2	SW3	SW4	SW5	Vout1	Vout2	Vout3
1	0	(1)	0	1	Vin2	Vin2	mute
1	1	(1)	0	1	Vin3	Vin3	Vin3
1	1	0	1	1	Vin4	Vin4	Vin4
1	1	1	1	1	Vin5	Vin5	Vin5
0	0	(0)	(0)	0	mute	mute	mute

VIN 2.VCR
VIN 3.DVD/LD
VIN 4.TV/SAT
VIN 5.FRONT
Vout1. MON out
Vout2. MR out
Vout3. VCR out

K
B TO B ASSY
(XWZ3781)

V CN901
CN354 B5B-PH-K-S
GAV FRONT V FRONT Y GAV FRONT C
J29

STBY
VEF1040
392 391

CN390 KM200TA9
CN391 KM200TA7
CN351 KP200TA7L

V+5.6V
ADG
V-5.6V
V1
V2
V3
FRONT V

+5.6V
-5.6V

CN392 52045-0545
4053 A 4053 INH V-5.6V GAV V+5.6V
J38

U CN551

L S. VIDEO ASSY
(XWZ3776)

IC352 NJM2595M
IC351 NJM2595M
VCC Vout2 SW1 Vin1 GND Vout3 SW2 Vin2
Vout1 SW5 Vin5 SW3 Vin4 SW4 Vin3 VEE

S-Y FUNC.SELECTOR
S-C FUNC.SELECTOR

CN353(1/2) AKP7020 LD/DVD
CN353(2/2) AKP7020 TV/SAT
CHASSIS
VCR1 CN352(3/3) AKP7043

MON OUT
VCR OUT
CN352(1/3) AKP7043
CN352(2/3) AKP7043
CHASSIS

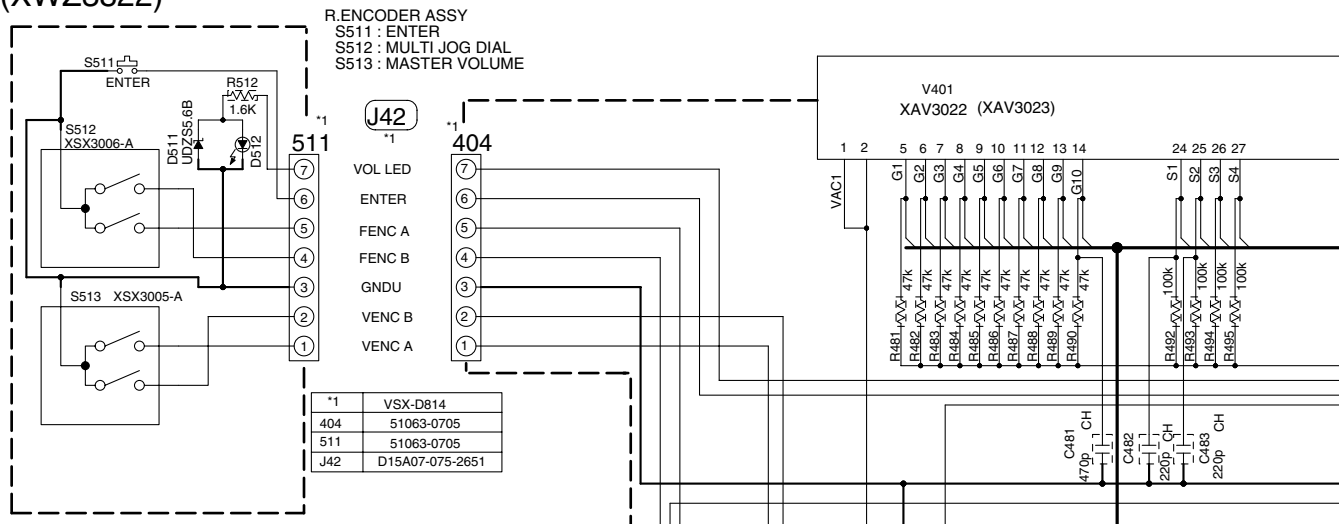
D351 1SS355
D352 1SS355
D353 1SS355
D354 1SS355
D355 1SS355
D356 1SS355
D357 1SS355
D358 1SS355

→ VIDEO SIGNAL FLOW
⇨ AUDIO SIGNAL FLOW

K L

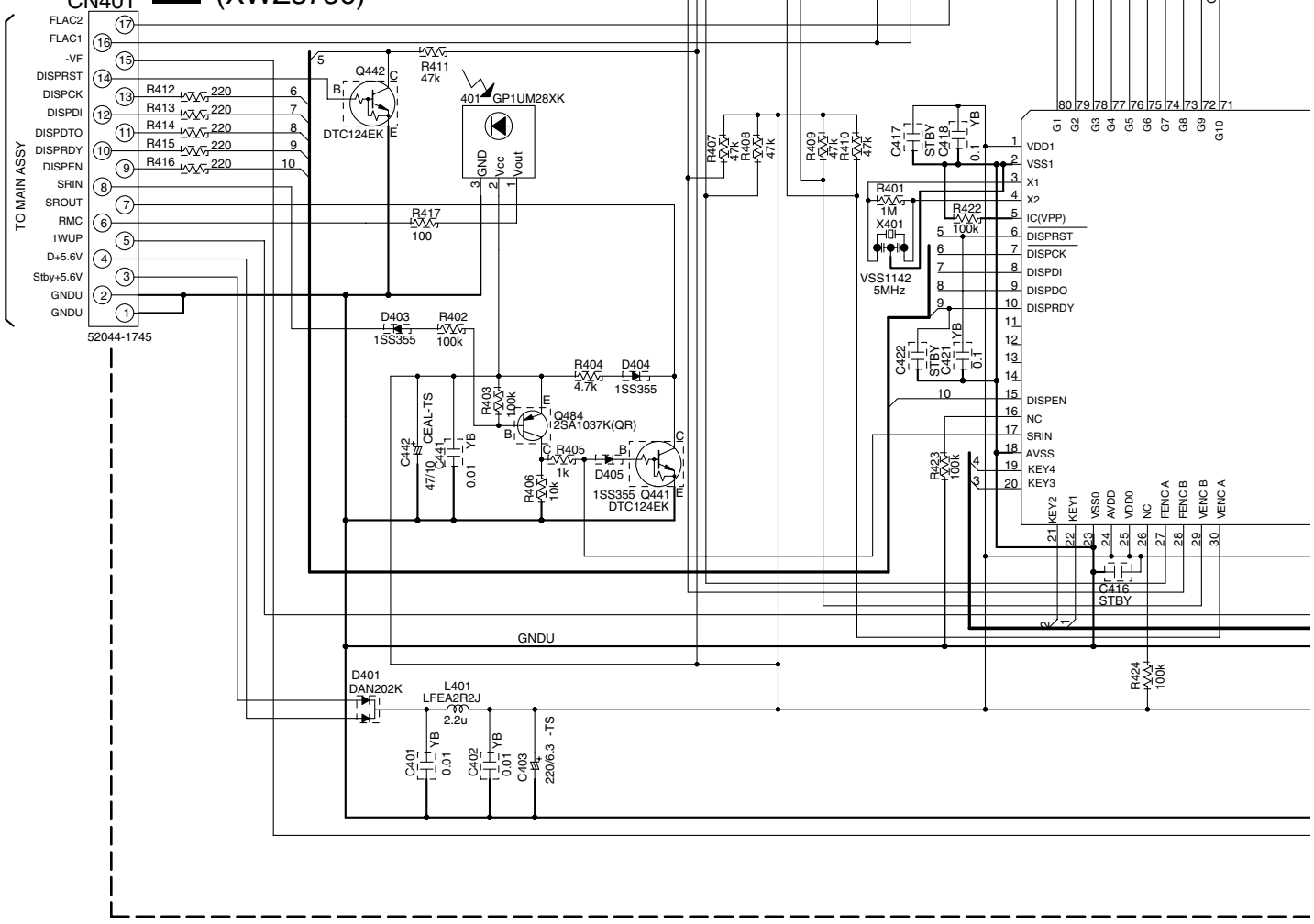
3.11 FRONT DISPLAY, R. ENCODER, P. SW & FUNC. KEY and FRONT KEY ASSYS

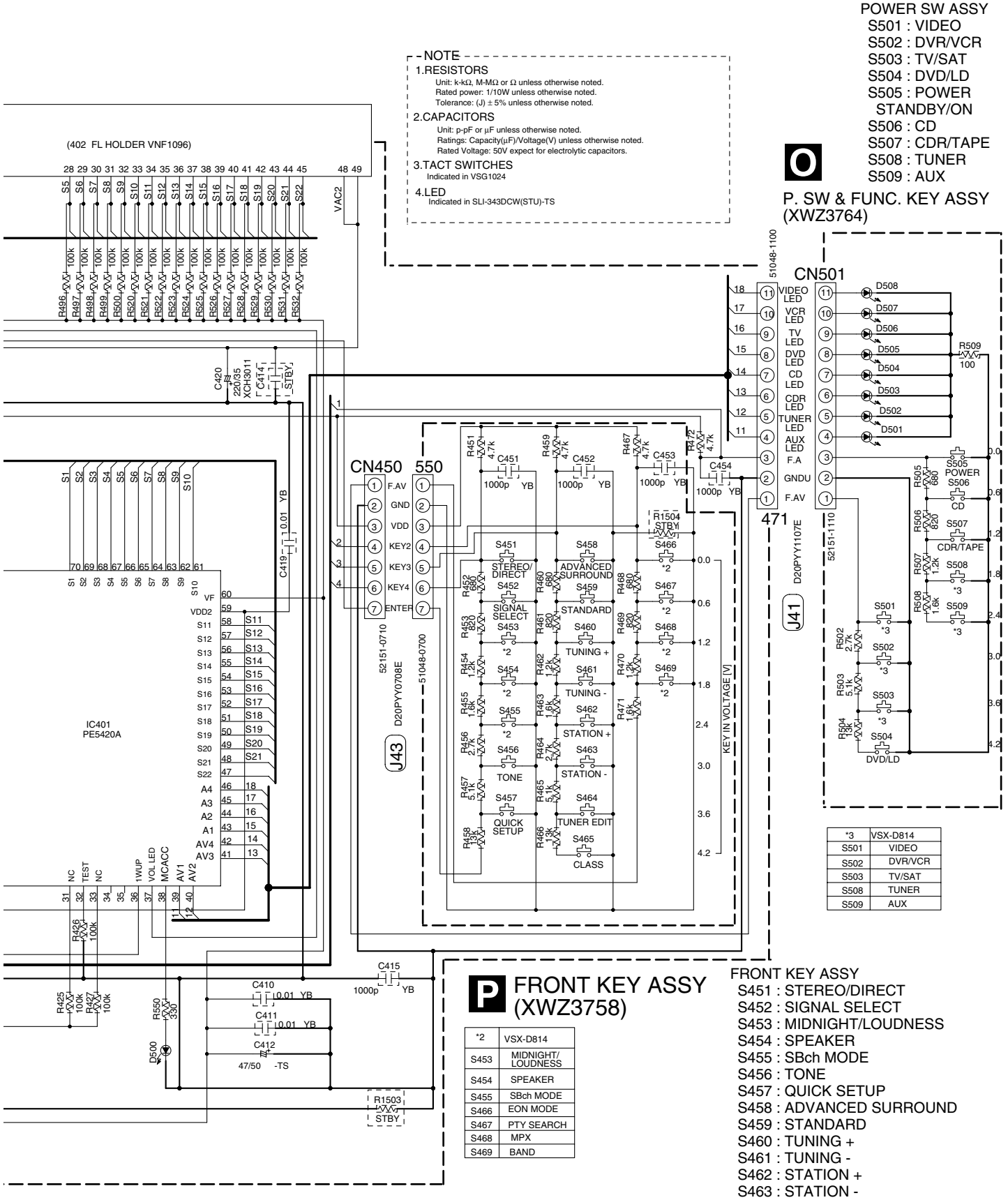
N R.ENCODER ASSY (XWZ3822)



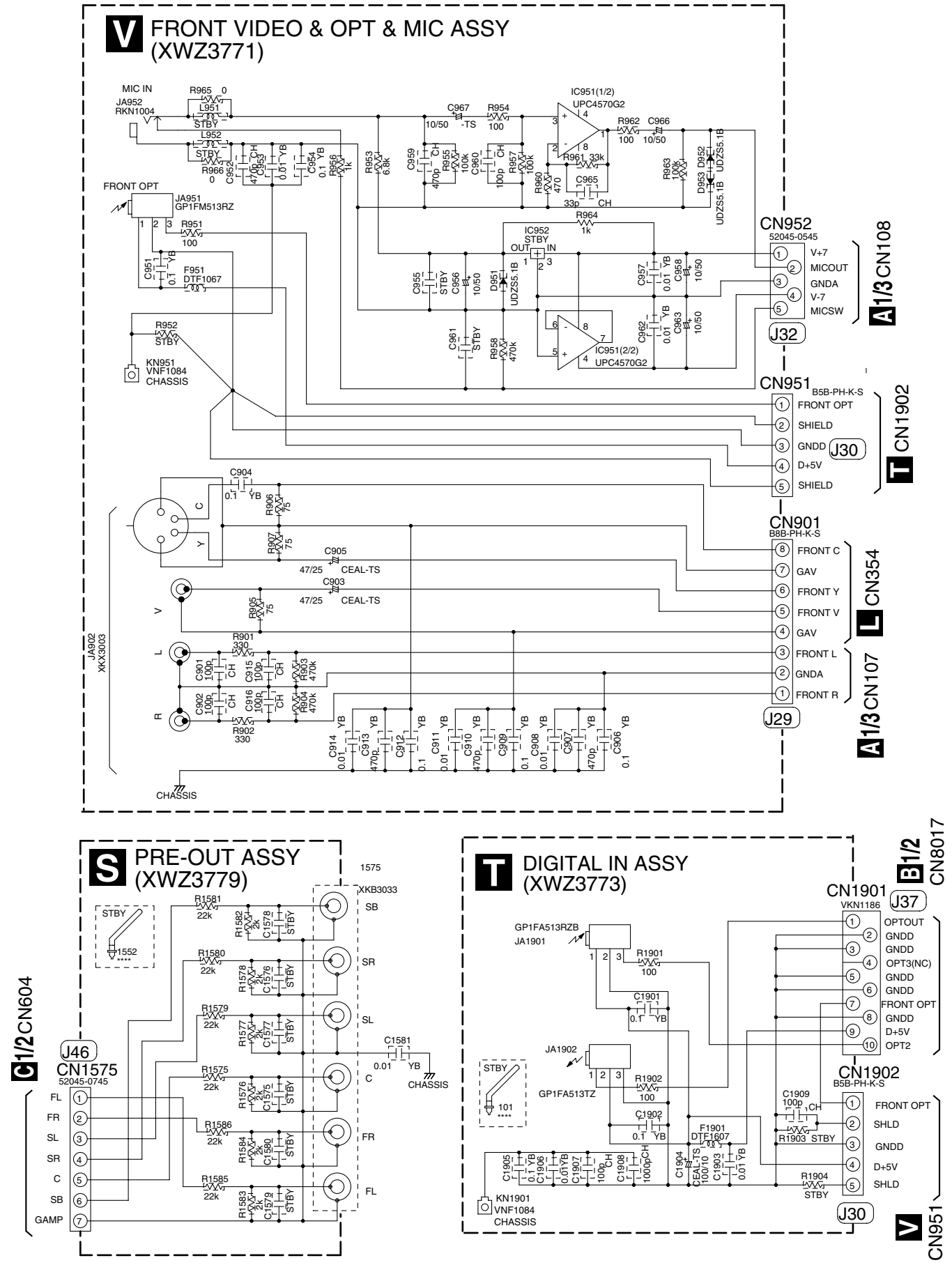
*1	VSX-D814
404	51063-0705
511	51063-0705
J42	D15A07-075-2651

A 3/3 CN101 J31 CN401 — M FRONT DISPLAY ASSY (XWZ3756)

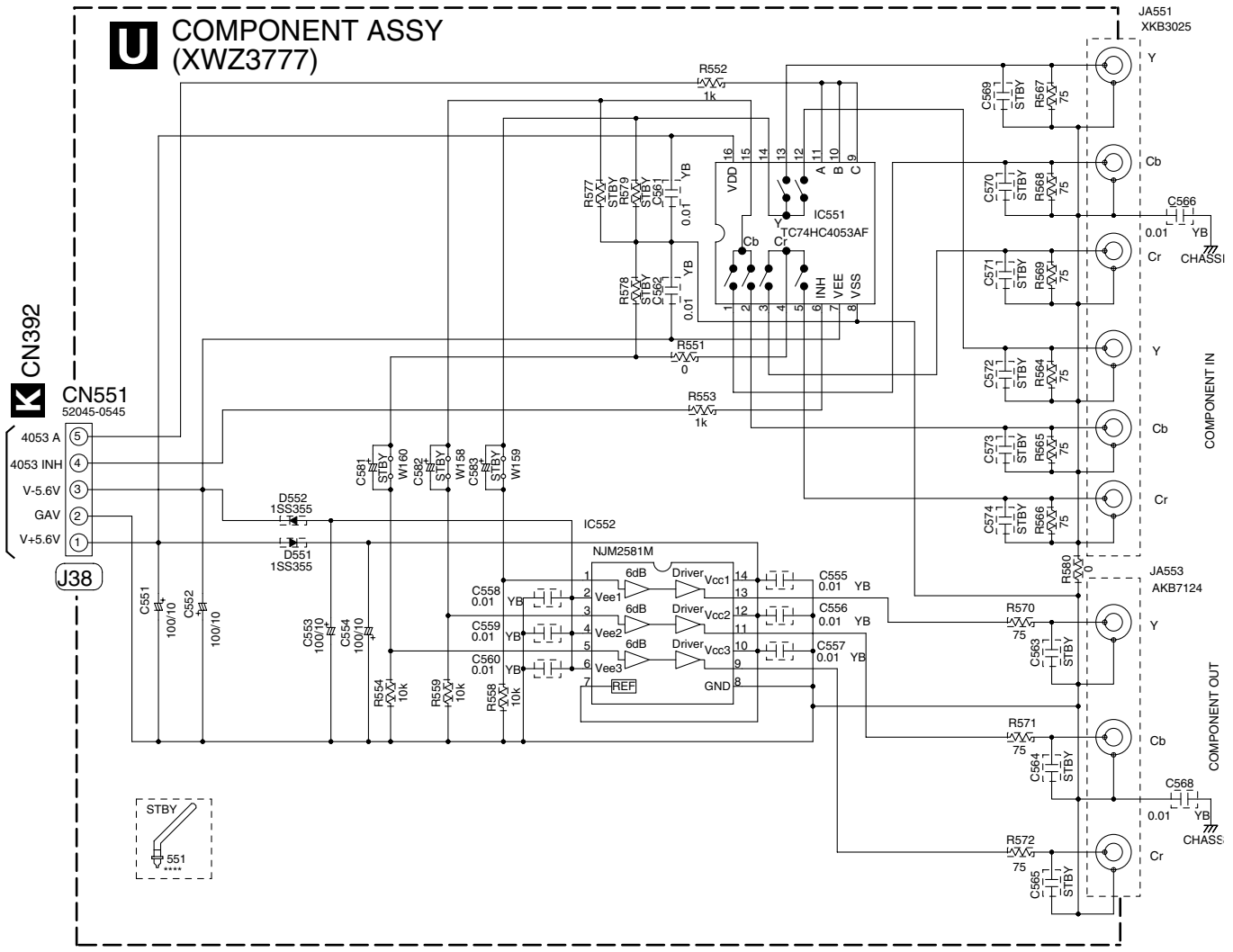


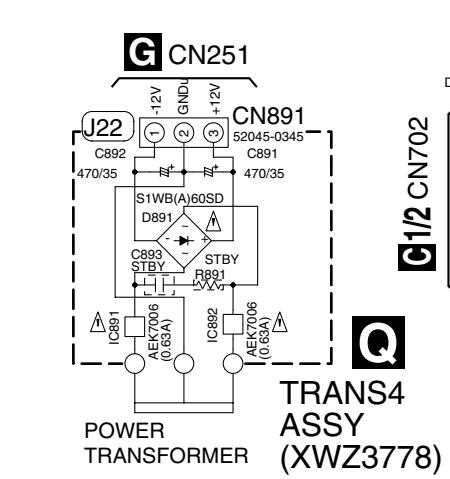

POWER SW ASSY
S501 : VIDEO
S502 : DVR/VCR
S503 : TV/SAT
S504 : DVD/LD
S505 : POWER STANDBY/ON
S506 : CD
S507 : CDR/TAPE
S508 : TUNER
S509 : AUX
O
P. SW & FUNC. KEY ASSY (XWZ3764)
NOTE
1.RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ± 5% unless otherwise noted.
2.CAPACITORS
Unit: p-pF or µF unless otherwise noted.
Ratings: Capacity(µF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.
3.TACT SWITCHES
Indicated in VSG1024
4.LED
Indicated in SLI-343DCW(STU)-TS
(402 FL HOLDER VNF1096)
CN501
CN450
550
J43
J41
471
IC401
PE5420A
D20PYY0708E
D20PYY1107E
52151-0710
52151-1110
51048-0700
51048-1100
KEY IN VOLTAGE [V]
VIDEO LED
VCR LED
TV LED
DVD LED
CD LED
CDR LED
TUNER LED
AUX LED
F.A
GNDU
F.AV
STEREO/ DIRECT
SIGNAL SELECT
ADVANCED SURROUND
STANDARD
TUNING +
TUNING -
STATION +
STATION -
TONE
QUICK SETUP
TUNER EDIT
CLASS
CD
CDR/TAPE
DVD/LD
P FRONT KEY ASSY (XWZ3758)
*3 VSX-D814
S501 VIDEO
S502 DVR/VCR
S503 TV/SAT
S508 TUNER
S509 AUX
*2 VSX-D814
S453 MIDNIGHT/ LOUDNESS
S454 SPEAKER
S455 SBch MODE
S466 EON MODE
S467 PTY SEARCH
S468 MPX
S469 BAND
FRONT KEY ASSY
S451 : STEREO/DIRECT
S452 : SIGNAL SELECT
S453 : MIDNIGHT/LOUDNESS
S454 : SPEAKER
S455 : SBch MODE
S456 : TONE
S457 : QUICK SETUP
S458 : ADVANCED SURROUND
S459 : STANDARD
S460 : TUNING +
S461 : TUNING -
S462 : STATION +
S463 : STATION -
S464 : TUNER EDIT
S465 : CLASS
S466 : EON MODE
S467 : PTY SEARCH
S468 : MPX
S469 : BAND
M O P

3.12 TRANS4, H.P., PRE-OUT, D.IN, COMP. and F. VIDEO&OPT&MIC ASSYS

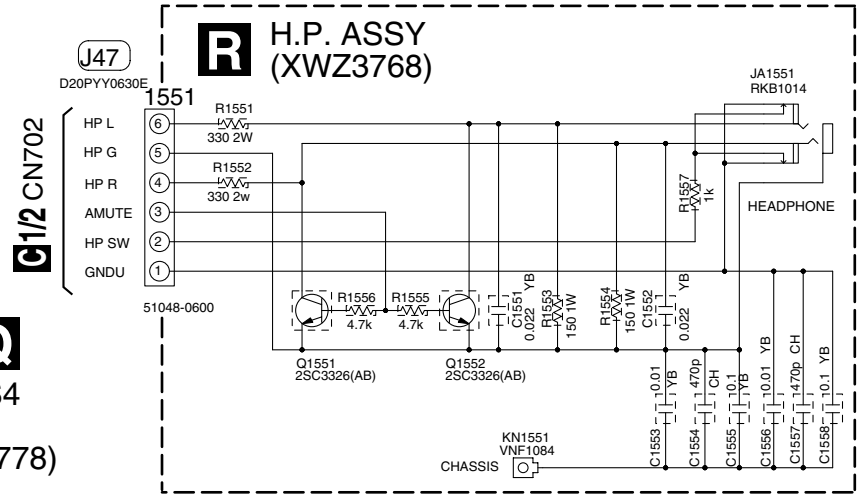


S T V





Q TRANS4 ASSY (XWZ3778)



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.630 FOR IC891 AND IC892 MFD, BY LITTELFUSE INC.

NOTE

1.RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ± 5% unless otherwise noted.

2.CAPACITORS
Unit: p-pF or μF unless otherwise noted.
Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.

Q R U

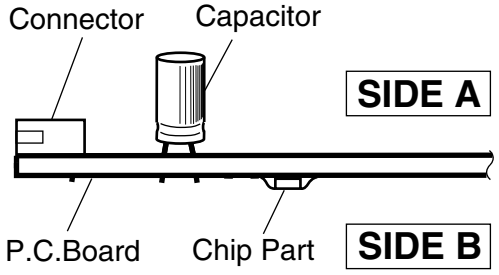
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

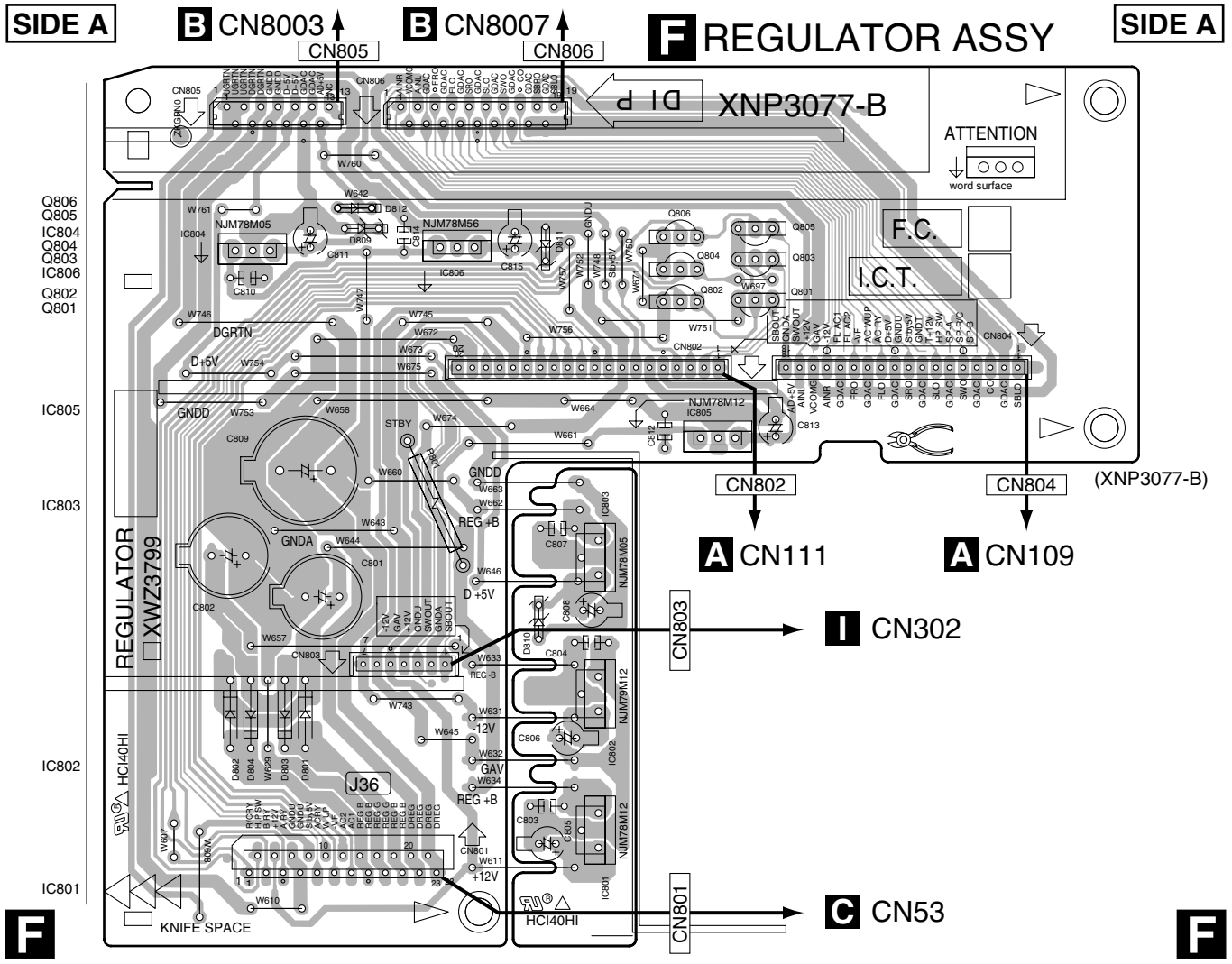
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.

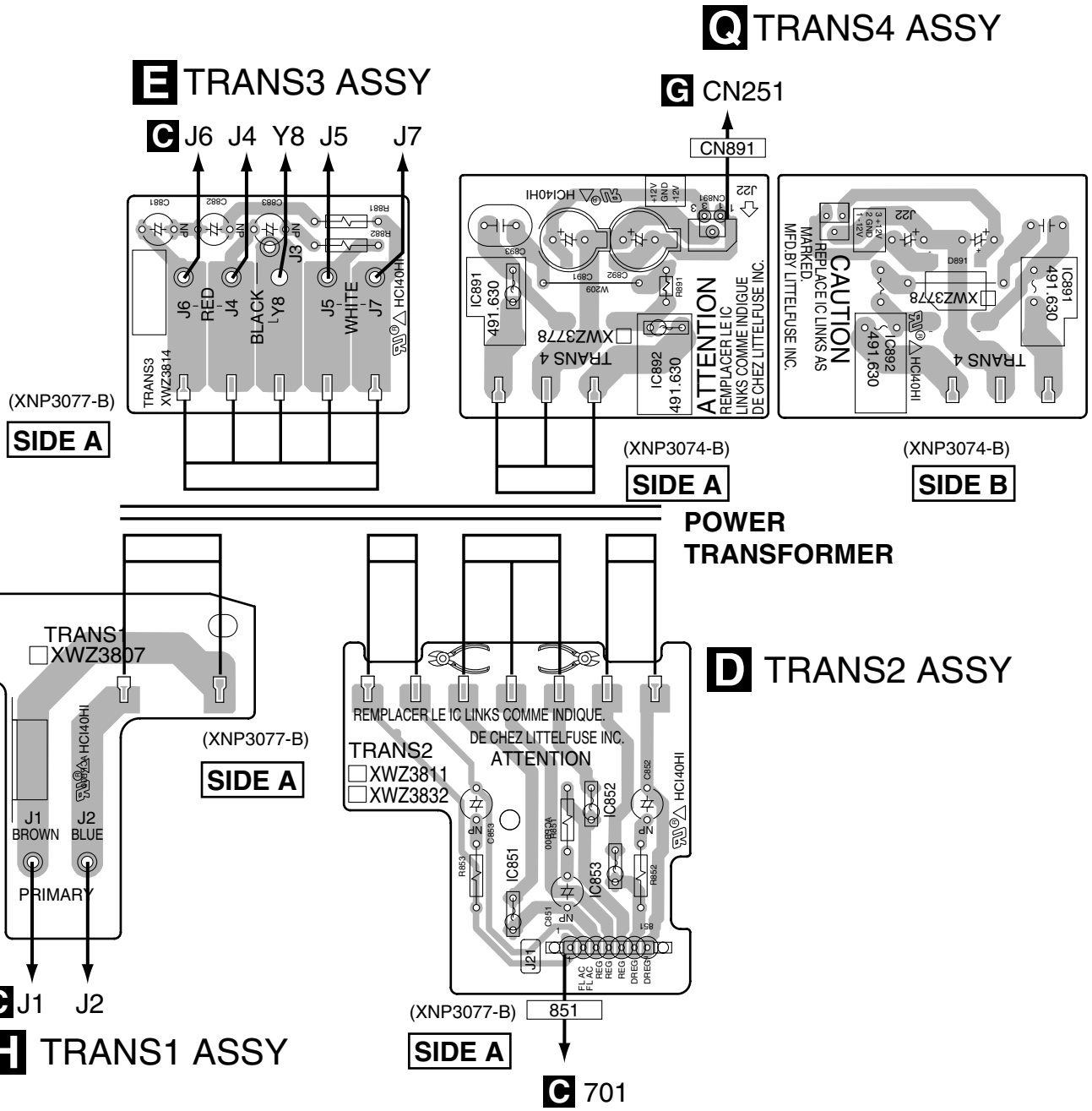


4.1 REGULATOR ASSY



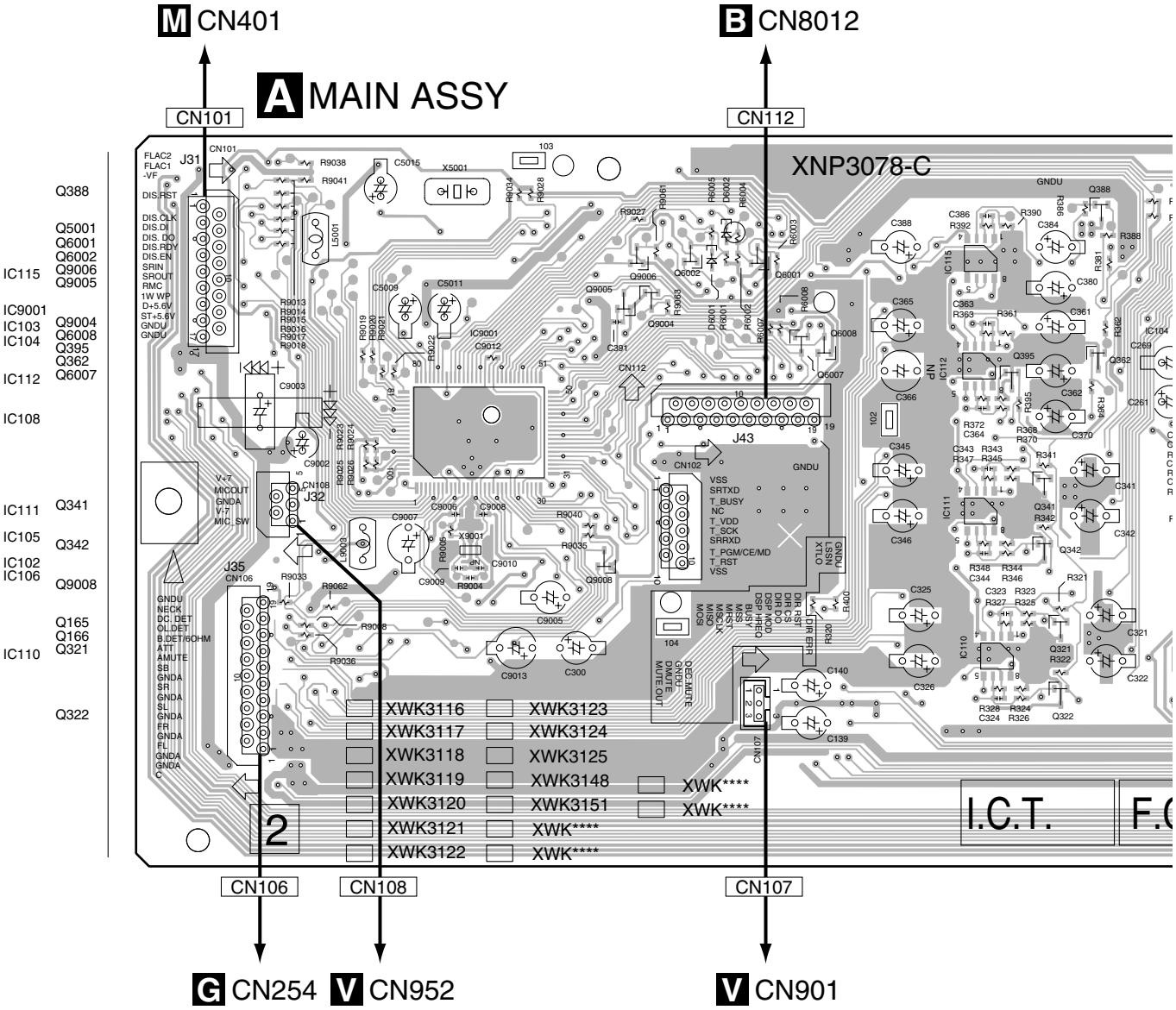
4.2 TRANS2, TRANS3, TRANS1 and TRANS4 ASSYS

SIDE A **SIDE B**

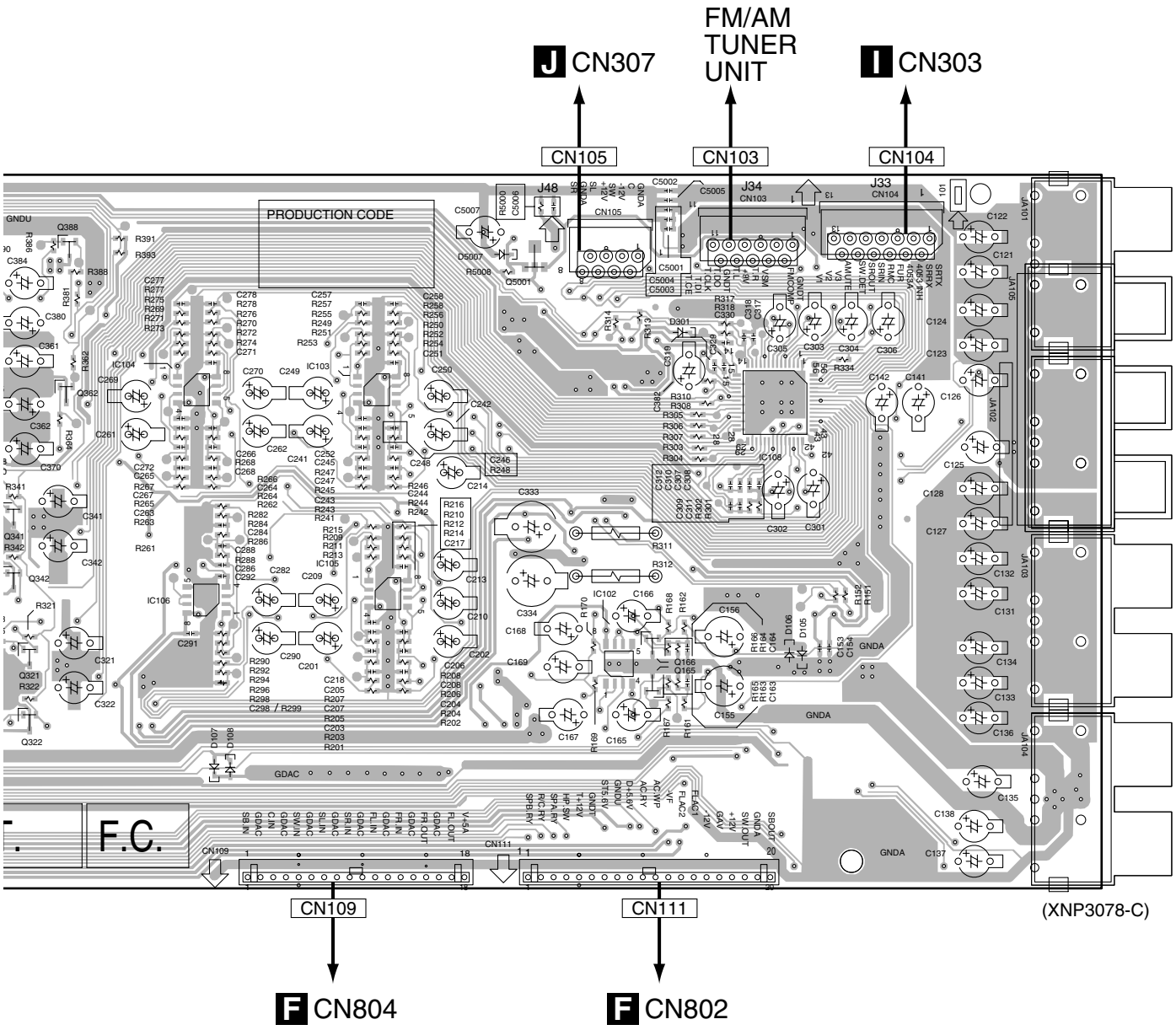


4.3 MAIN ASSY

SIDE A

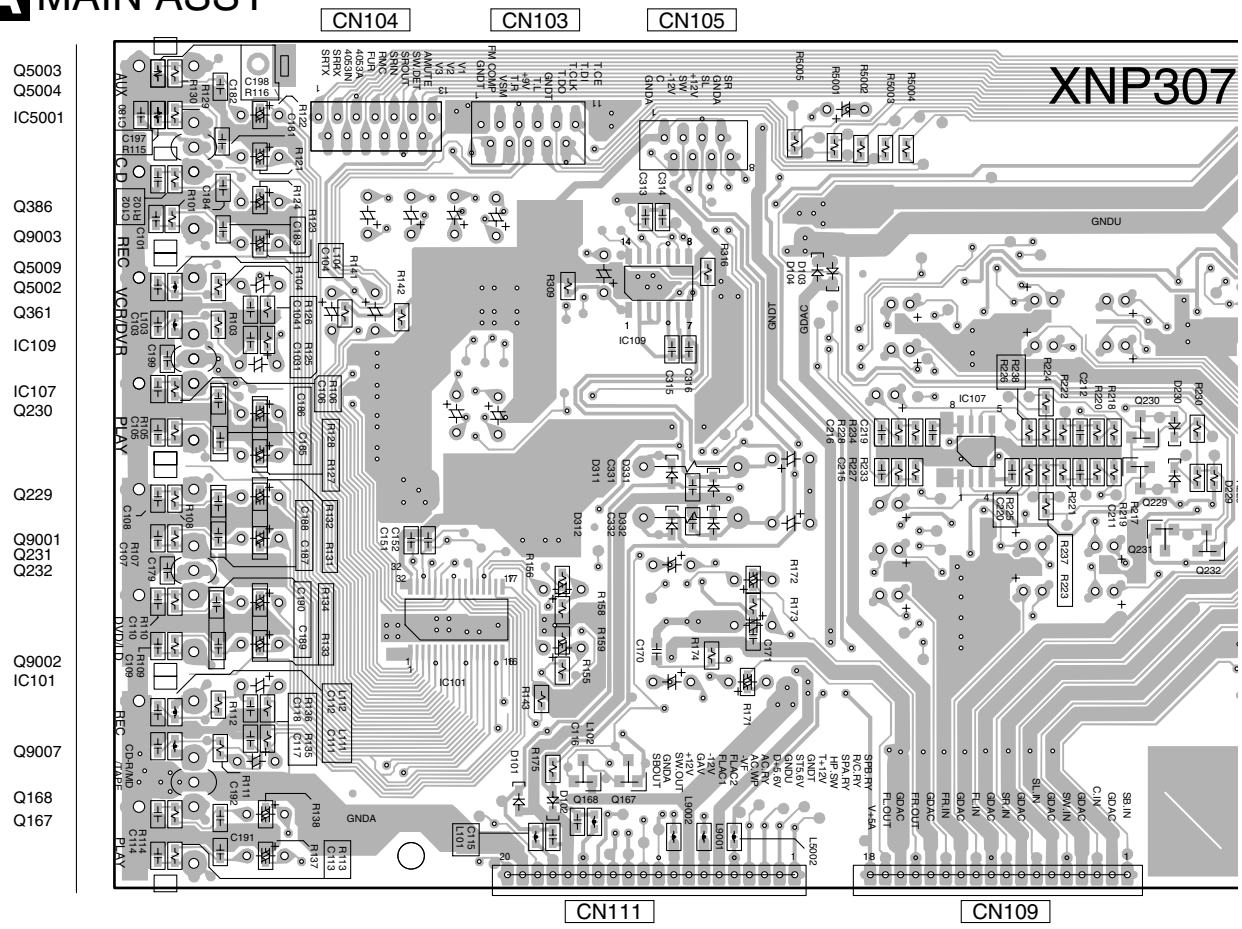


SIDE A


J CN307
FM/AM TUNER UNIT
I CN303
CN105
CN103
CN104
PRODUCTION CODE
CN109
CN111
F CN804
F CN802
(XNP3078-C)

SIDE B

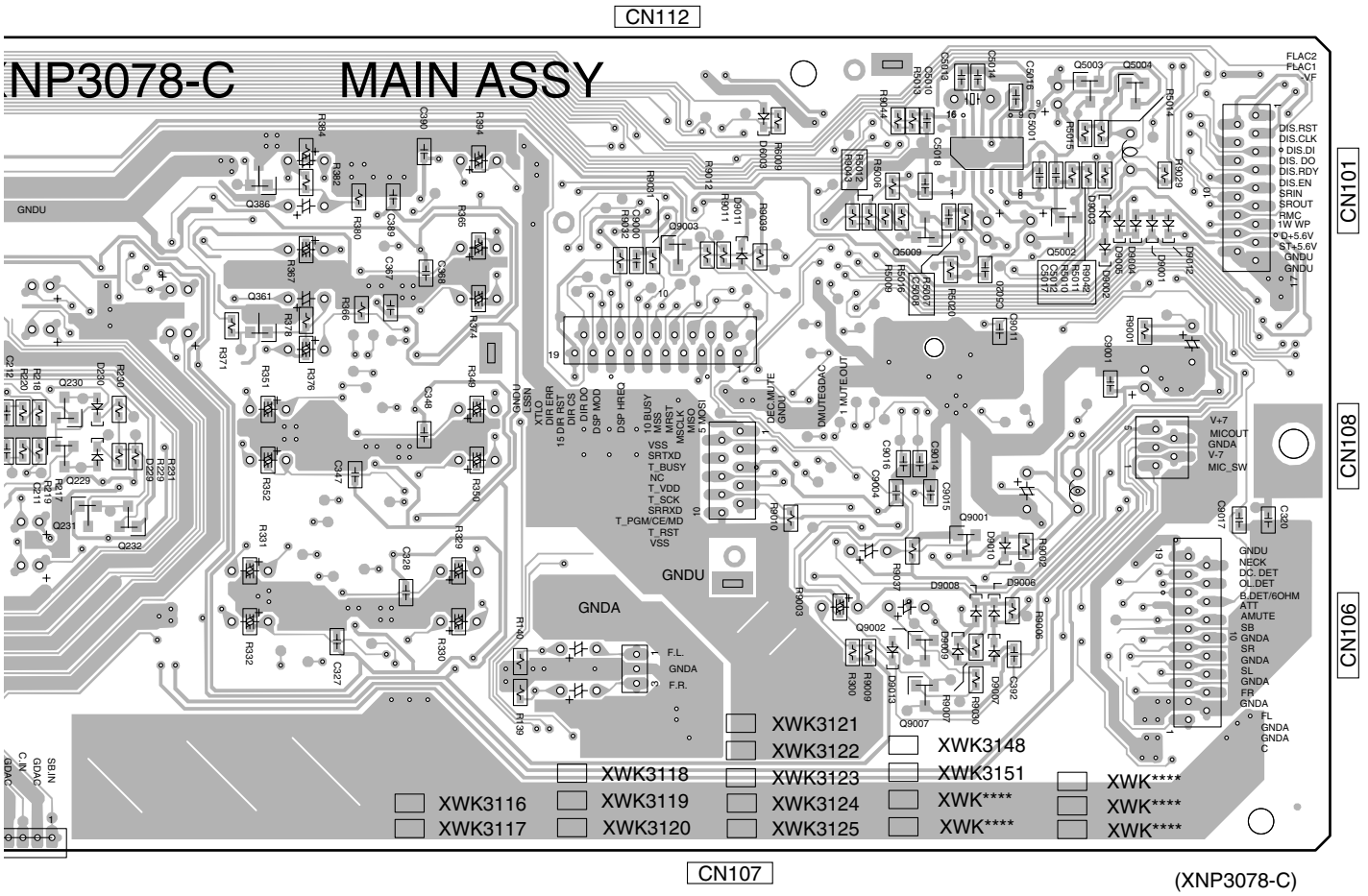
A MAIN ASSY



SIDE B

A

B



(XNP3078-C)

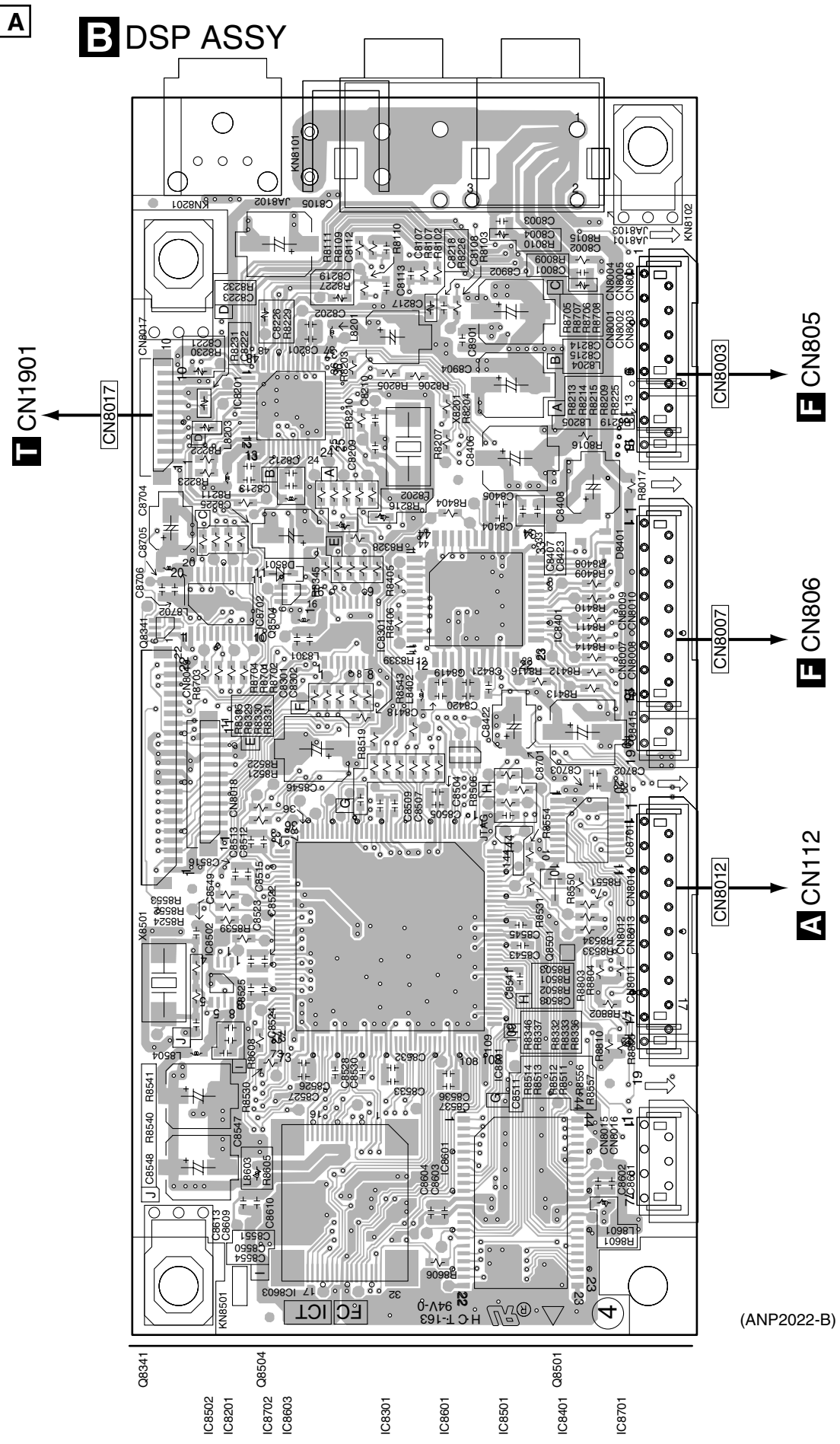
C

D

E

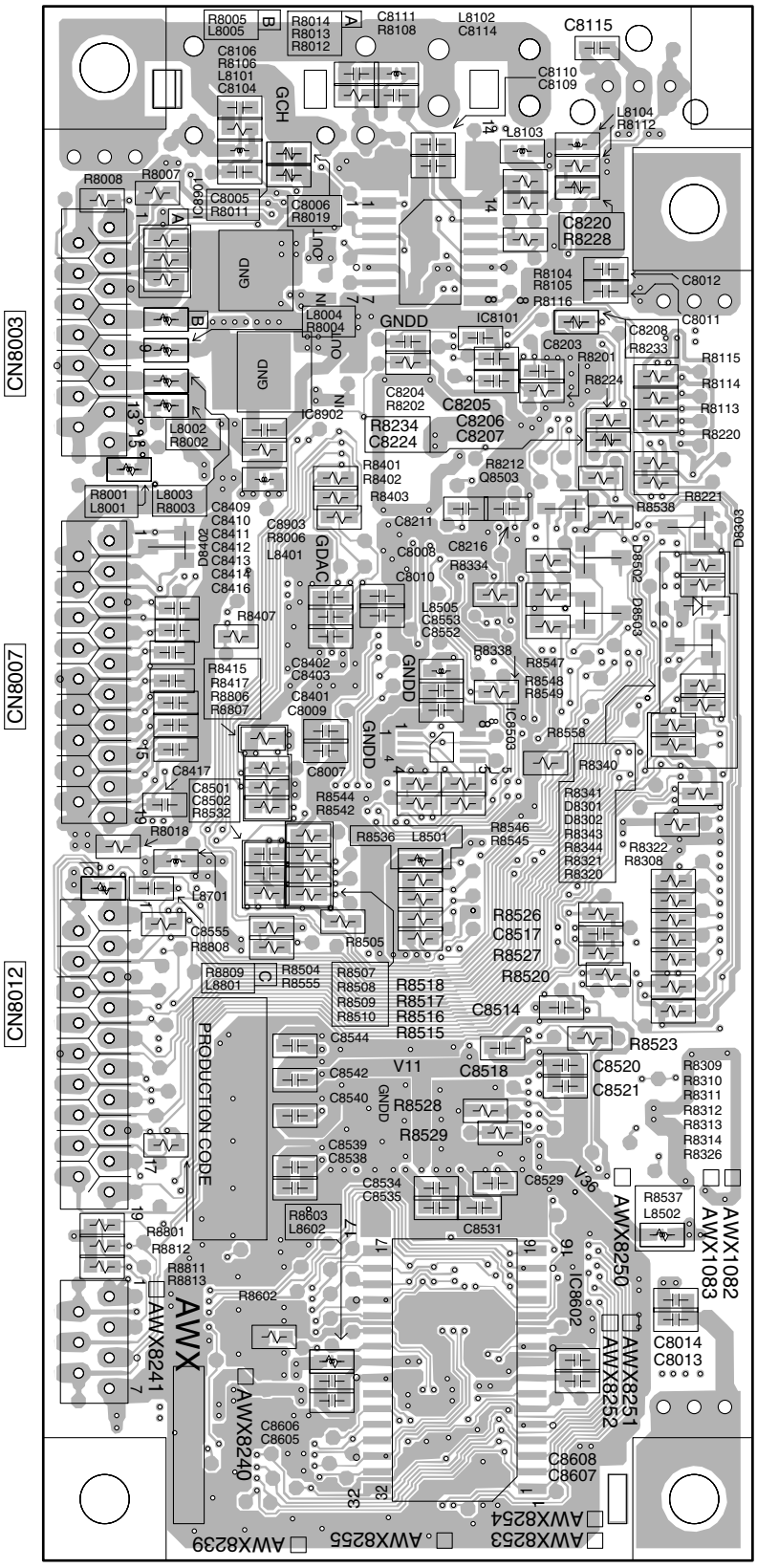
F

4.4 DSP ASSY


SIDE A
B DSP ASSY
SIDE A
T CN1901
CN8017
CN8003
F CN805
CN8007
F CN806
CN8012
A CN112
(ANP2022-B)
Q8341
Q8504
Q8501
IC8502
IC8201
IC8702
IC8603
IC8301
IC8601
IC8501
IC8401
IC8701

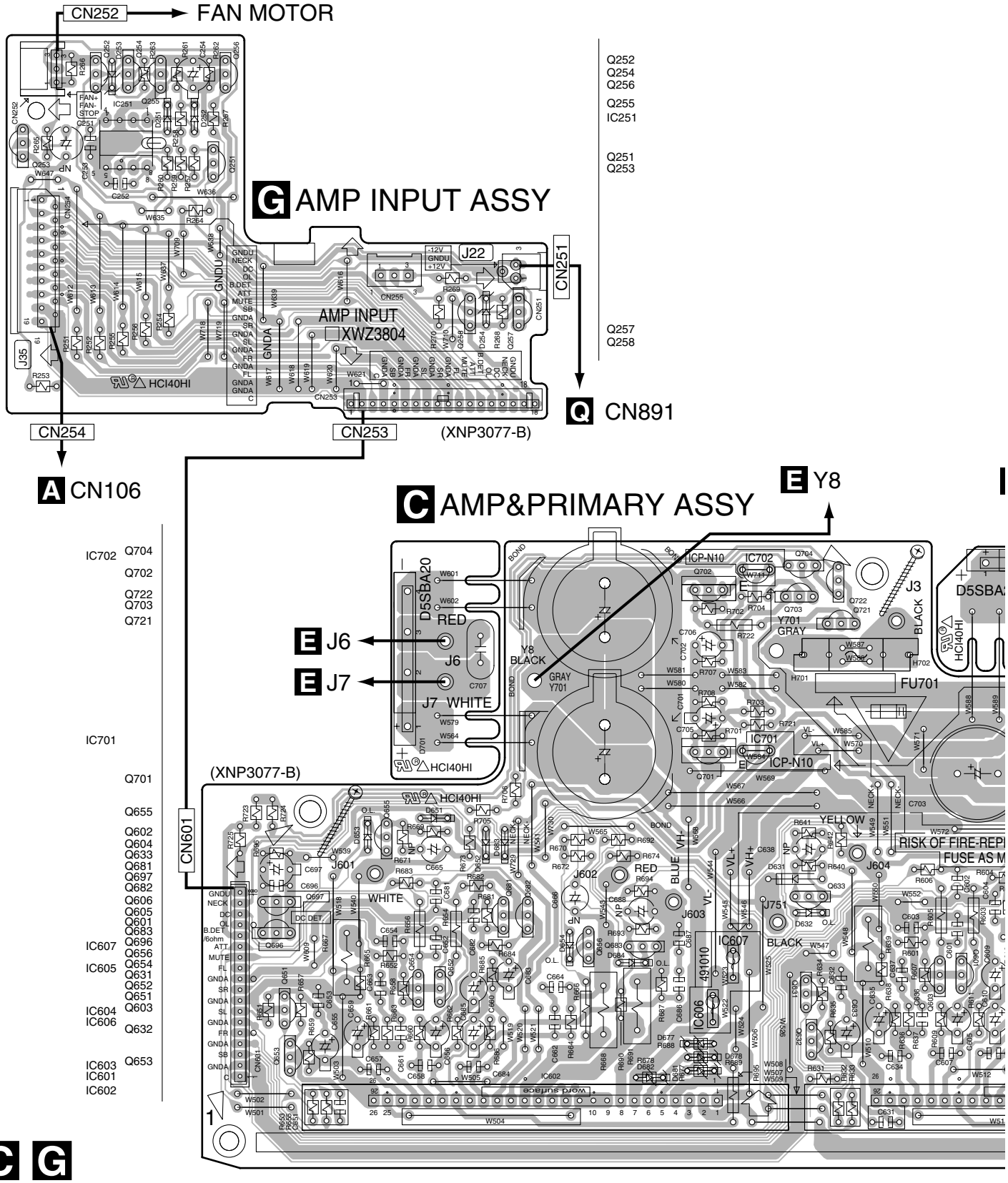
B DSP ASSY

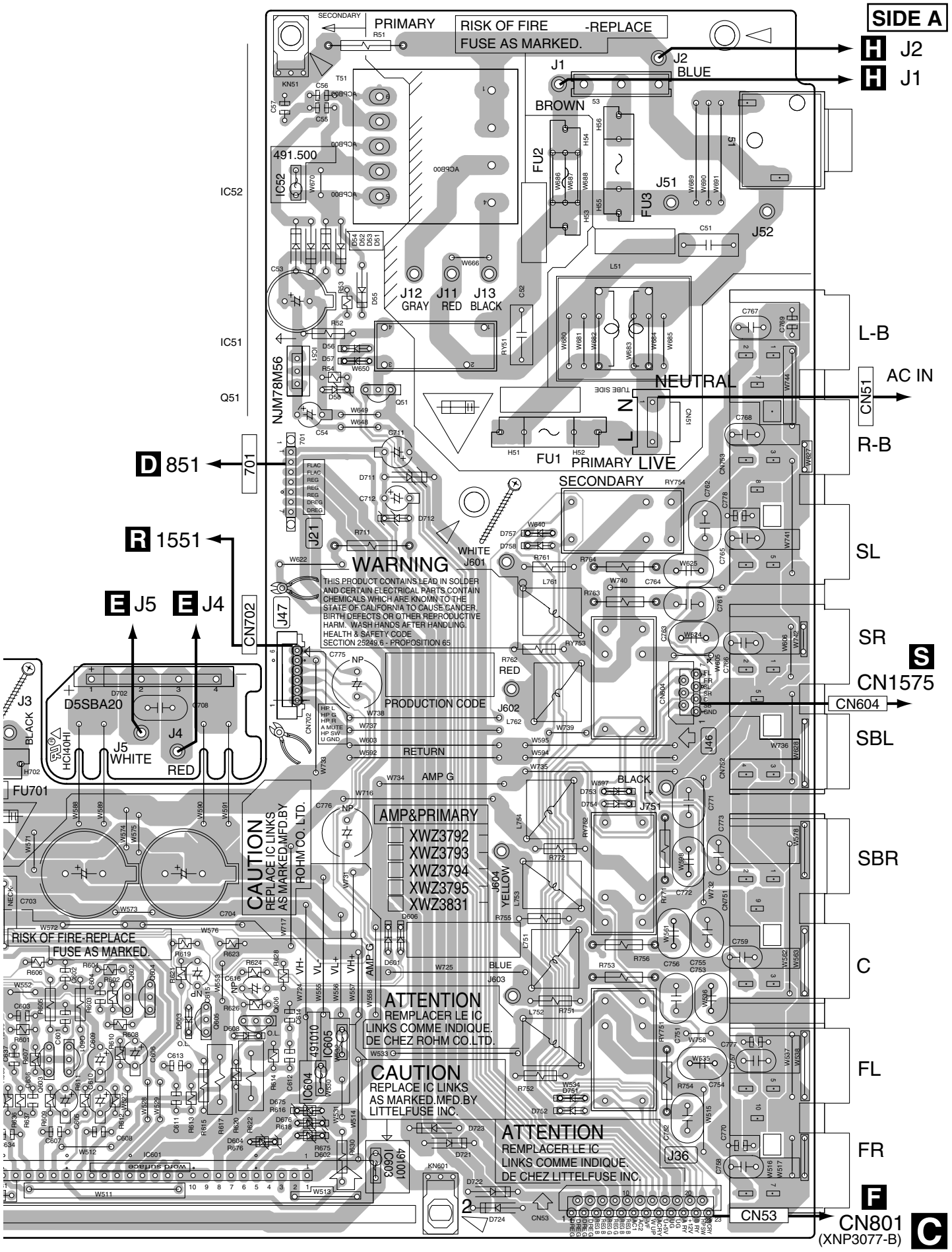
SIDE B



4.5 AMP & PRIMARY and AMP INPUT ASSYS

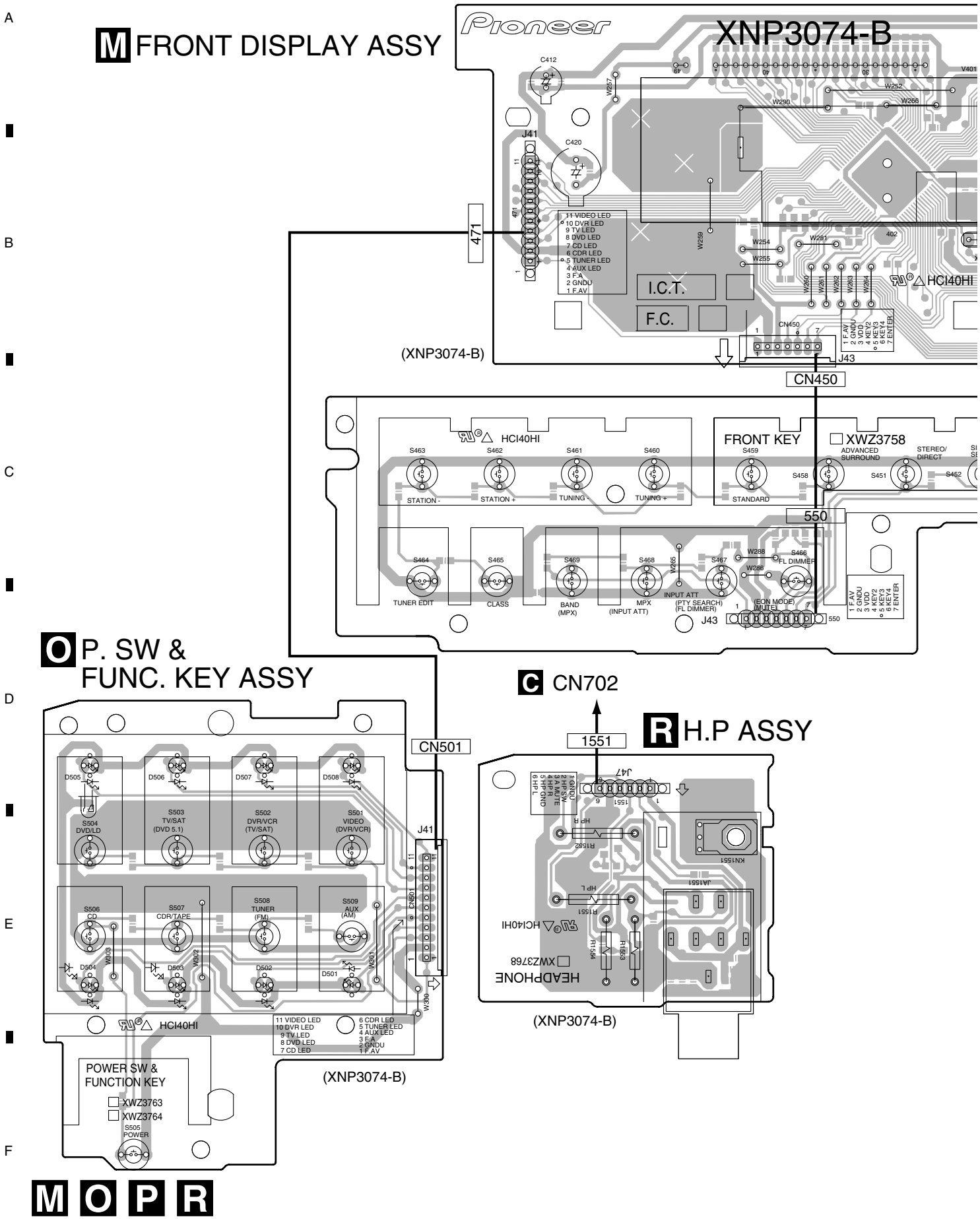
SIDE A




SIDE A
SECONDARY
PRIMARY
RISK OF FIRE -REPLACE FUSE AS MARKED.
H J2
H J1
J2 BLUE
J1 BROWN
J51
J52
J12 GRAY
J11 RED
J13 BLACK
IC52
IC51
Q51
NJM78M56
491.500
FU1 PRIMARY LIVE
FU2
FU3
NEUTRAL
AC IN
CN51
L-B
R-B
SL
SR
S CN1575
CN604
SBL
SBR
C
FL
FR
F CN801 C
(XNP3077-B)
D 851
701
R 1551
CN702
E J5
E J4
J3 BLACK
J4 RED
J5 WHITE
D5SBA20
HC140HI
FU701
WARNING
THIS PRODUCT CONTAINS LEAD IN SOLDER AND CERTAIN ELECTRICAL PARTS CONTAIN CHEMICALS WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. WASH HANDS AFTER HANDLING.
HEALTH & SAFETY CODE SECTION 25249.6 - PROPOSITION 65
PRODUCTION CODE
WHITE J601
RED J602
YELLOW J604
BLUE J603
BLACK J751
RETURN
AMP G
CAUTION
REPLACE IC LINKS AS MARKED.MFD.BY ROHM CO. LTD.
AMP&PRIMARY
XWZ3792
XWZ3793
XWZ3794
XWZ3795
XWZ3831
ATTENTION
REMPLACER LE IC LINKS COMME INDIQUE. DE CHEZ ROHM CO.LTD.
CAUTION
REPLACE IC LINKS AS MARKED.MFD.BY LITTELFUSE INC.
ATTENTION
REMPLACER LE IC LINKS COMME INDIQUE. DE CHEZ LITTELFUSE INC.
IC604 491010
IC605
IC603 491001
IC601
KN601
RISK OF FIRE-REPLACE FUSE AS MARKED.

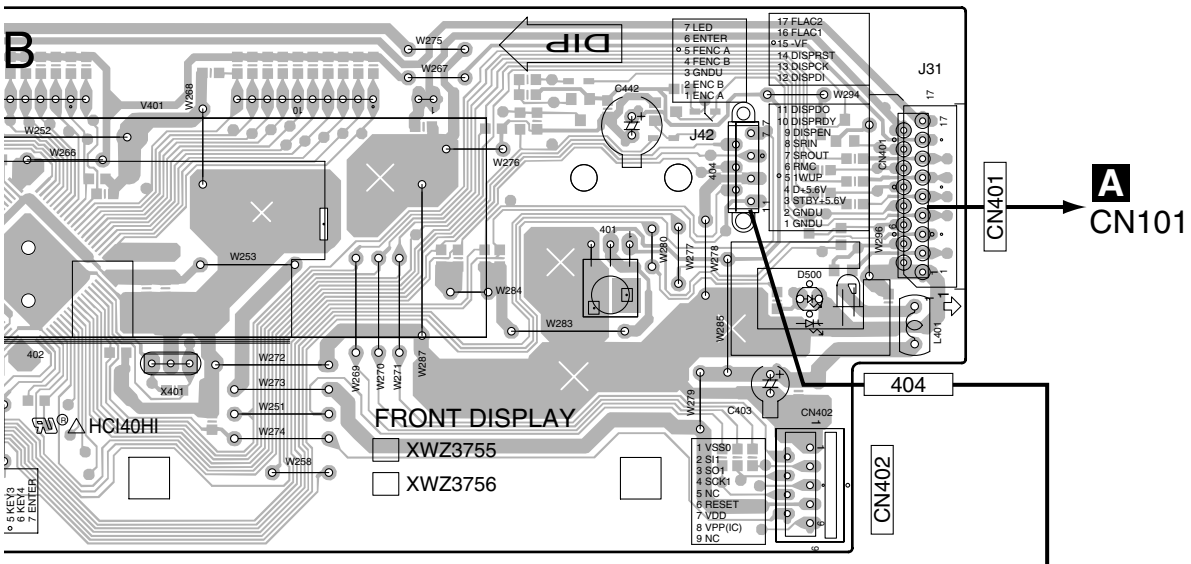
4.6 F. DISPLAY, R. ENCODER, P. SW&FUNC. KEY, H. P. and F. KEY ASSYS

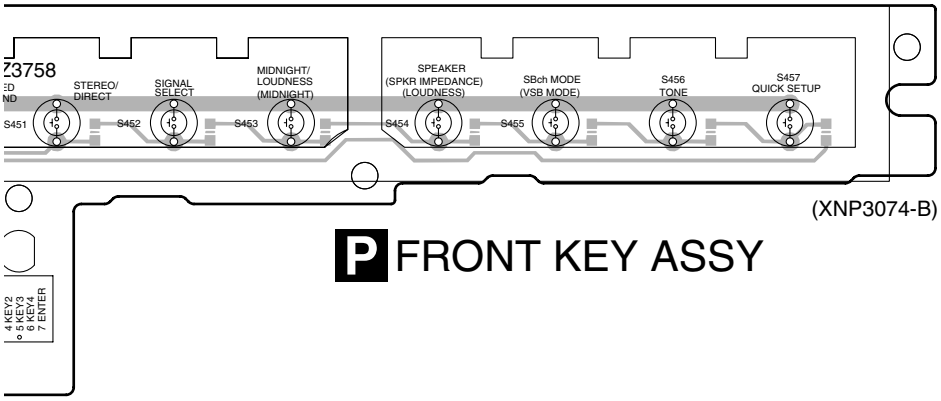
SIDE A



M O P R

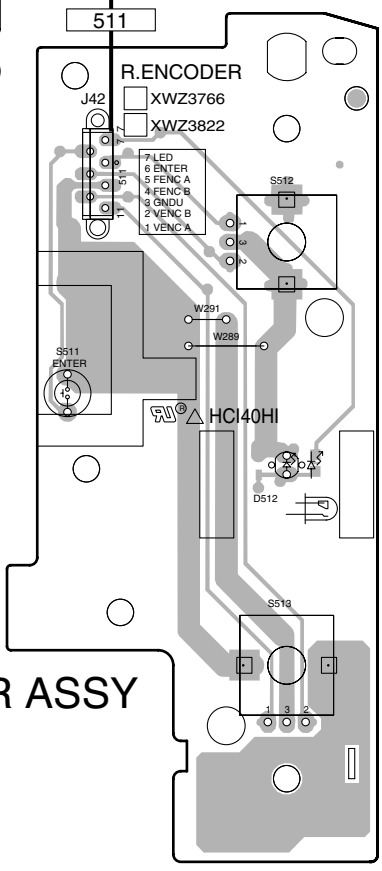
SIDE A





(XNP3074-B)

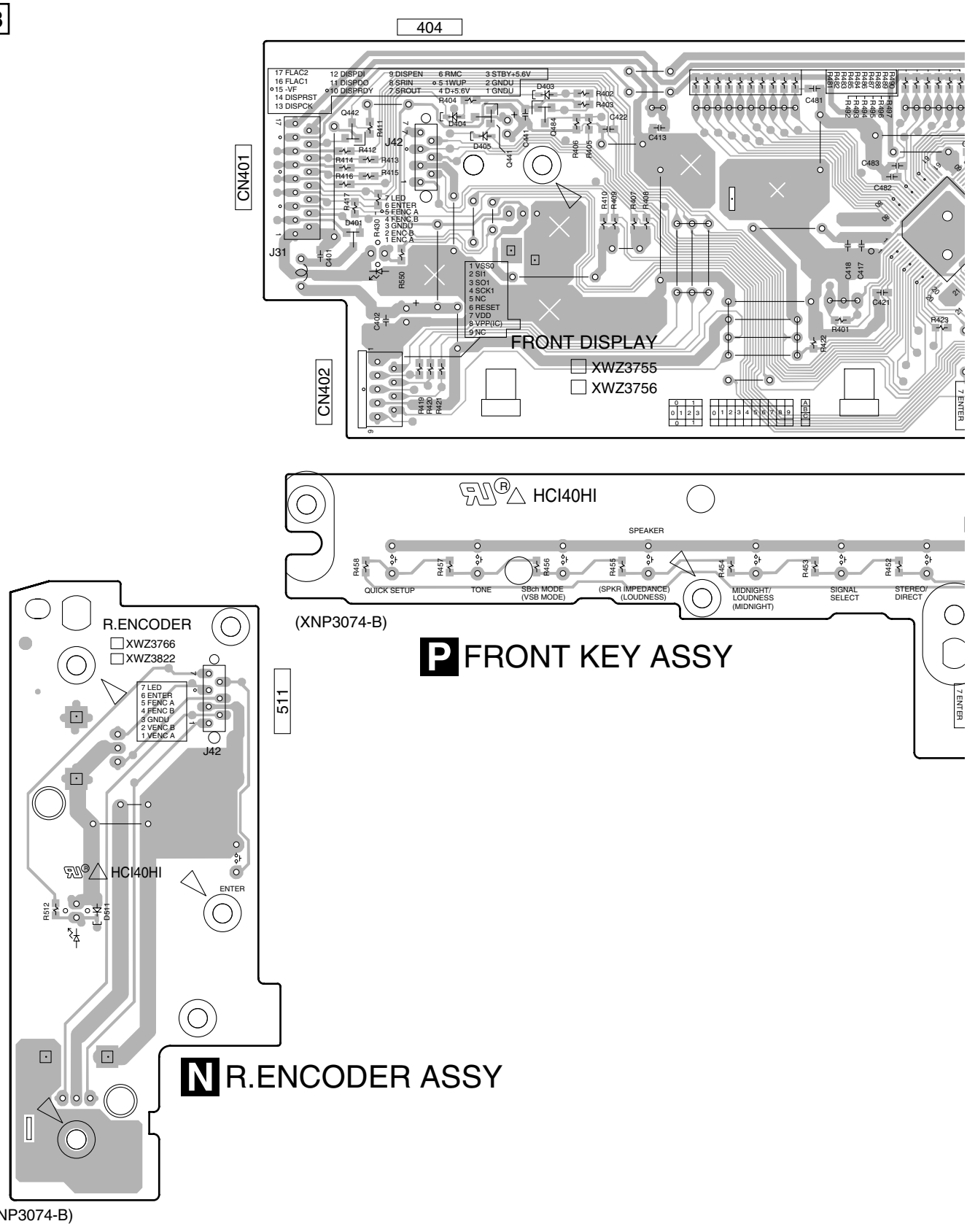
P FRONT KEY ASSY



N R.ENCODER ASSY

(XNP3074-B)

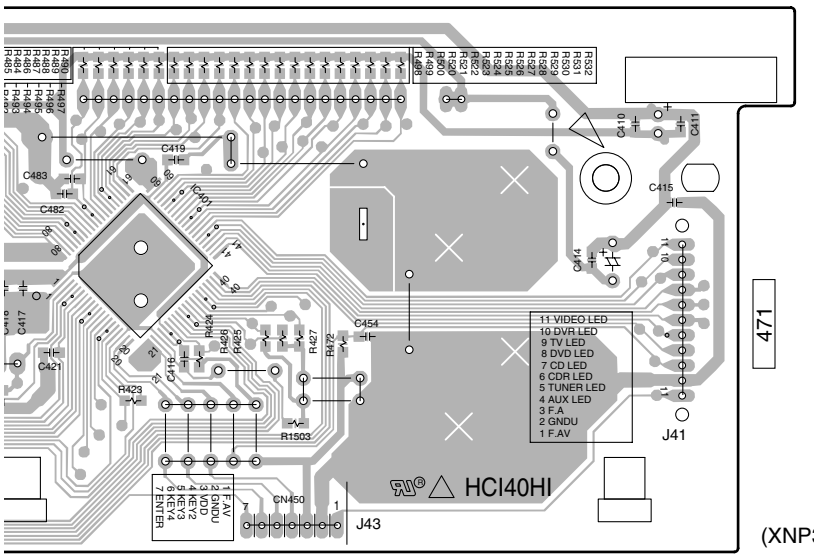
SIDE B


404
CN401
CN402
J31
J42
FRONT DISPLAY
XWZ3755
XWZ3756
HCI40HI
SPEAKER
QUICK SETUP
TONE
SBch MODE
(VSB MODE)
(SPKR IMPEDANCE)
(LOUDNESS)
MIDNIGHT/
LOUDNESS
(MIDNIGHT)
SIGNAL
SELECT
STEREO/
DIRECT
(XNP3074-B)
P FRONT KEY ASSY
R.ENCODER
XWZ3766
XWZ3822
511
HCI40HI
ENTER
(XNP3074-B)
N R.ENCODER ASSY

M N P

SIDE B

M FRONT DISPLAY ASSY

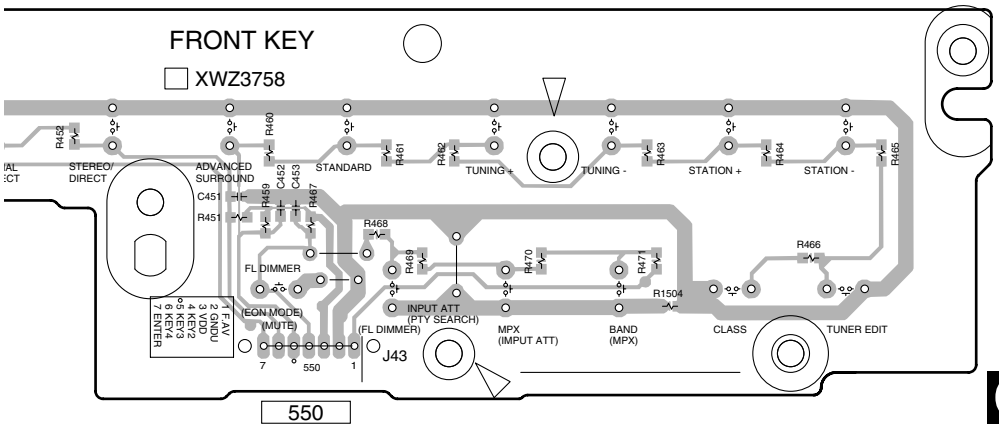


Q441
Q442
Q484

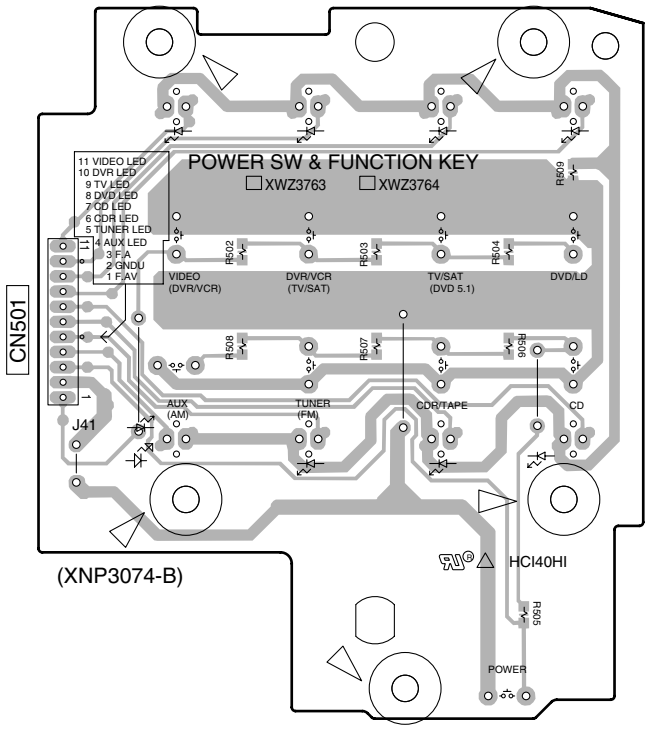
IC401

(XNP3074-B)

CN450



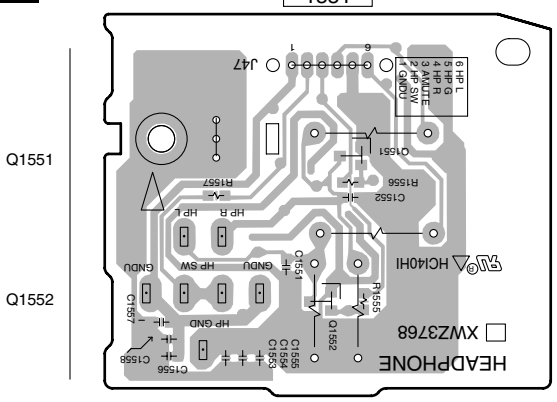
O P. SW & FUNC. KEY ASSY



(XNP3074-B)

R H.P ASSY

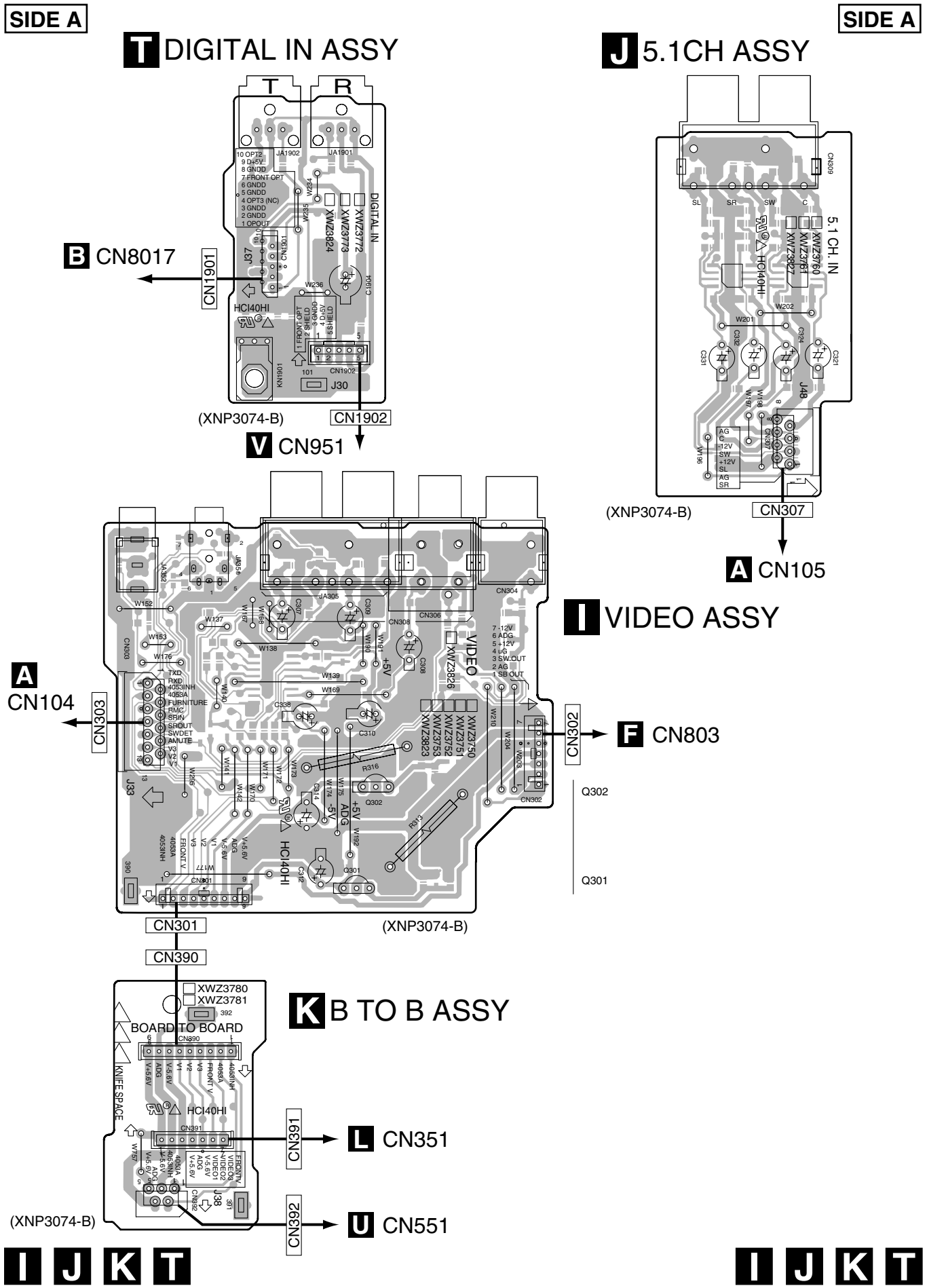
1551



Q1551
Q1552

(XNP3074-B)

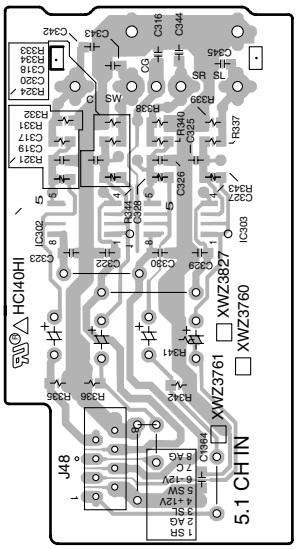
4.7 B TO B, DIGITAL IN, VIDEO and 5.1CH ASSYS



SIDE B

SIDE B

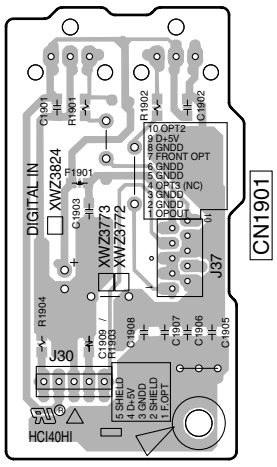
J 5.1CH ASSY



CN307

(XNP3074-B)

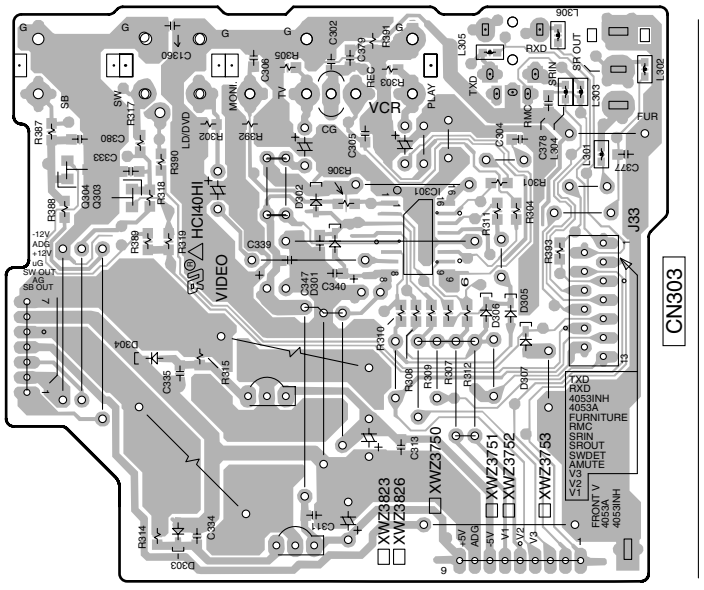
T DIGITAL IN ASSY



CN1902

(XNP3074-B)

I VIDEO ASSY

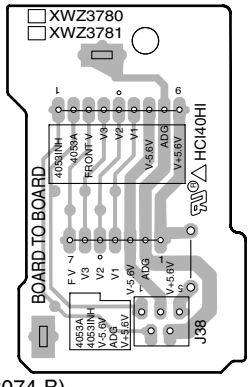


(XNP3074-B)

CN301

CN390

K B TO B ASSY

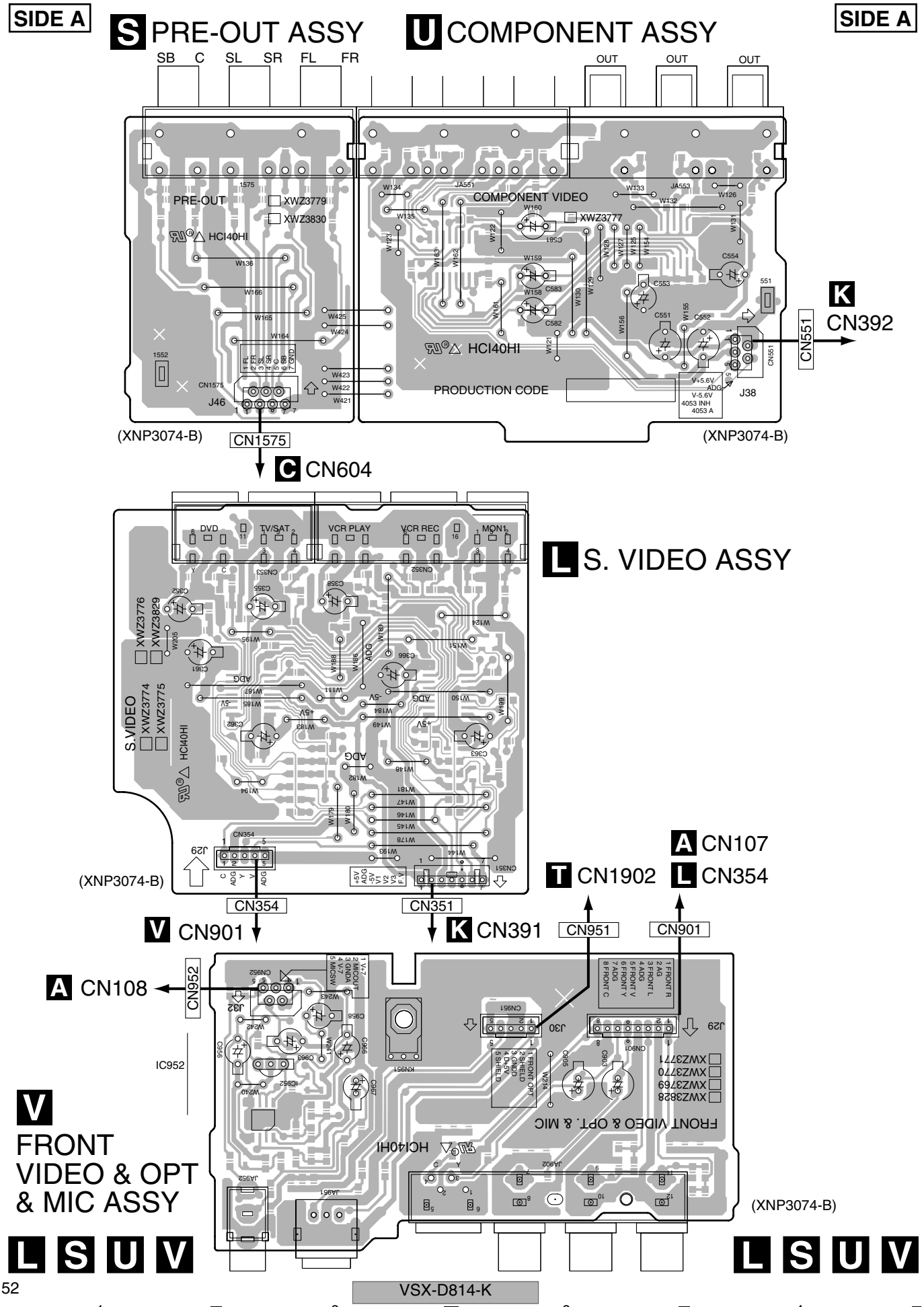


(XNP3074-B)

I J K T

I J K T

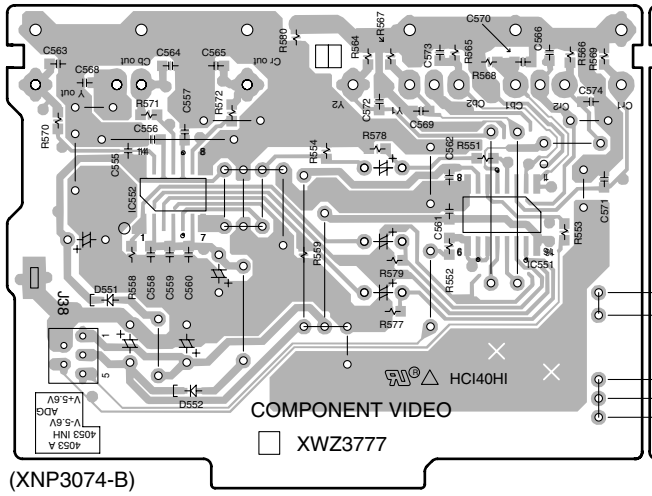
4.8 S.VIDEO, F. VIDEO&OPT&MIC, COMPONENT and PRE-OUT ASSYS



SIDE B

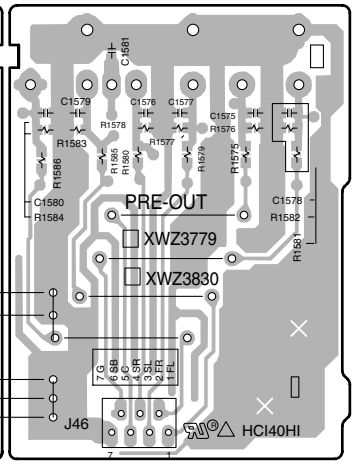
SIDE B

U COMPONENT ASSY



(XNP3074-B)

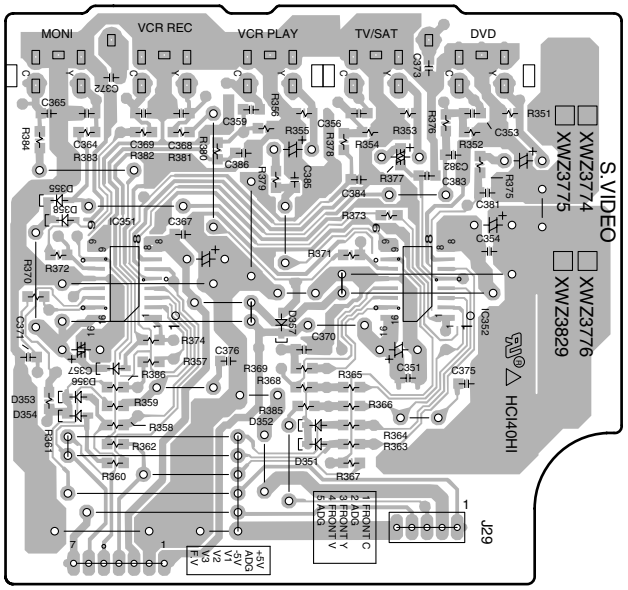
S PRE-OUT ASSY



CN1575

(XNP3074-B)

L S. VIDEO ASSY



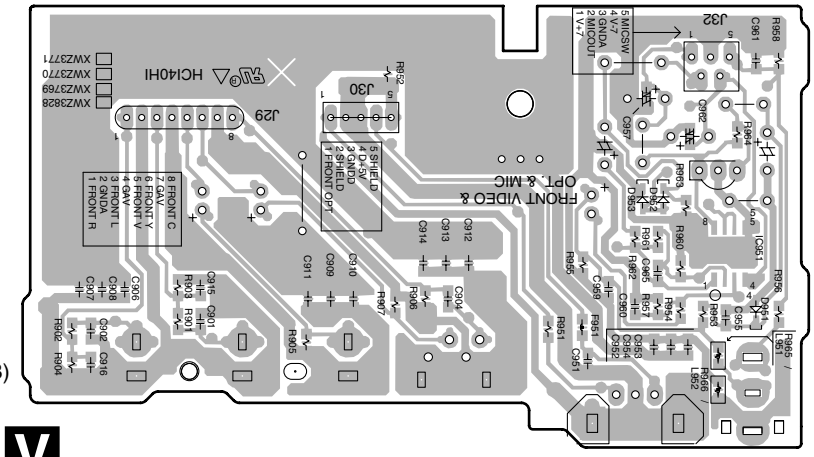
IC351
IC352

CN351

CN354

(XNP3074-B)

CN901 CN951 CN952



V FRONT VIDEO & OPT & MIC ASSY

IC951

(XNP3074-B)

L S U V

L S U V

5 6 7 8

5. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10[1] → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 x 10[3] → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10[1] → 5621 ..... RN1/4PC 5 6 2 1 F

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
	1	MAIN ASSY	XWK3123
	1	DSP ASSY	AWX1082
NSP	1	AMP & PS ASSY	XWK3143
	2	AMP & PRIMARY ASSY	XWZ3793
	2	REGULATOR ASSY	XWZ3799
	2	AMP INPUT ASSY	XWZ3804
	2	TRANS1 ASSY	XWZ3807
	2	TRANS2 ASSY	XWZ3811
	2	TRANS3 ASSY	XWZ3814
	2	BINDER ASSY	XWZ3818
	2	HOLDER ASSY	XWZ3821
NSP	1	COMPLEX ASSY	XWK3131
	2	VIDEO ASSY	XWZ3753
	2	FRONT DISPLAY ASSY	XWZ3756
	2	FRONT KEY ASSY	XWZ3758
	2	5.1CH ASSY	XWZ3760
	2	P. SW & FUNC. KEY ASSY	XWZ3764
	2	H.P. ASSY	XWZ3768
	2	F. VIDEO & OPT &MIC ASSY	XWZ3771
	2	DIGITAL IN ASSY	XWZ3773
	2	S. VIDEO ASSY	XWZ3776
	2	COMPONENT ASSY	XWZ3777
	2	TRANS4 ASSY	XWZ3778
	2	PRE-OUT ASSY	XWZ3779
	2	B TO B ASSY	XWZ3781
	2	R. ENCODER ASSY	XWZ3822
	1	FM/AM TUNER UNIT	AXX7170

Mark	No.	Description	Part No.

COMPLEX ASSY

OTHERS

	J42	JUMPER WIRE	D15A07-075-2651
	J47	JUMPER WIRE	D20PYY0630E
	J43	JUMPER WIRE 7P	D20PYY0708E
	J41	JUMPER WIRE 11P	D20PYY1107E

AMP & PS ASSY

OTHERS

	Y8	AWG14 BOARD IN	ADX7284
	J21	JUMPER WIRED	D20PYY0715E

Mark	No.	Description	Part No.

A MAIN ASSY

SEMICONDUCTORS

	IC109	BD3812F
	IC108	BD3813KS
	IC101	BD3841FS
	IC5001	BU1924F
	IC102	NJM2100M
	IC9001	PEG062A
	IC103–IC107, IC110–IC112, IC115	UPC4570G2
	Q5004,Q6001	2SA1037K
	Q5009	2SC2412K
	Q165, Q166, Q321, Q322	2SC3326
	Q341, Q342, Q361, Q362, Q395	2SC3326
	Q5001	2SD1664
	Q229, Q230	2SK208
	Q167, Q231, Q9002-Q9005	DTA124EK
	Q9008	DTA143TK
	Q232, Q6002	DTC124EK
	Q168, Q5003,Q6007,Q6008,Q9001	DTC143EK
	Q9006	DTC143EK
	Q9007	DTC143TK
	D103–D108, D229, D230, D301	1SS355
	D311, D312, D6001,D6002	1SS355
	D9001-D9013	1SS355
	D101, D102	RB501V-40
	D5007	UDZS10B
	D331, D332	UDZS6.8B

COILS AND FILTERS

	L9001,L9002 CHIP SOLID INDUCTOR	ATL7002
	L5001,L9003	LFEA2R2J
	L101–L104, L111, L112, L5002 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

	C101–C114, C151, C152	CCSRCH101J50
	C163, C164, C181–C192	CCSRCH101J50
	C197, C198, C243, C244, C263	CCSRCH101J50
	C284, C313, C314, C317, C318	CCSRCH101J50
	C323, C324, C343, C344, C363	CCSRCH101J50
	C386	CCSRCH101J50
	C1031,C1041,C117, C118	CCSRCH220J50
	C5013,C5014	CCSRCH270J50
	C205–C208, C245–C248, C265	CCSRCH331J50
	C267, C286, C288	CCSRCH331J50
	C203, C204	CCSRCH471J50
	C5017	CCSRCH561J50

Mark No.	Description	Part No.
	C366	CEANP4R7M50
	C121–C128, C131–C142	CEAT100M50
	C167, C168, C209, C210	CEAT100M50
	C213, C214, C249, C250	CEAT100M50
	C269, C270, C290, C301–C306	CEAT100M50
	C321, C322, C341, C342	CEAT100M50
	C361, C362, C380, C382, C384	CEAT100M50
	C5015	CEAT101M10
	C5007	CEAT101M16
	C169	CEAT221M6R3
	C201, C202, C241, C242	CEAT2R2M50
	C261, C262, C282, C5011,C9005	CEAT2R2M50
	C9007	CEAT331M6R3
	C325, C326, C345, C346, C365	CEAT470M25
	C388	CEAT470M25
	C155, C156	CEAT470M50
	C333, C334	CEAT471M10
	C9013	CEAT471M6R3
	C165, C166, C370	CEAT4R7M50
	C170	CKSQYB104K16
	C320, C392, C5001,C5016	CKSRYB102K50
	C9015,C9016	CKSRYB102K50
	C115, C116, C153, C154, C171	CKSRYB103K50
	C179, C180, C199, C215–C218	CKSRYB103K50
	C251, C252, C266, C271, C272	CKSRYB103K50
	C291, C292, C315, C316, C319	CKSRYB103K50
	C327–C330, C347, C348	CKSRYB103K50
	C367, C368, C389, C390, C5002	CKSRYB103K50
	C5008,C9004,C9008,C9017	CKSRYB103K50
	C219, C220, C309–C312	CKSRYB104K16
	C5003,C9006	CKSRYB105K10
	C264	CKSRYB223K25
	C257, C258, C277, C278, C298	CKSRYB472K50
	C307, C308, C364, C5020	CKSRYB472K50
	C9011,C9014	CKSRYB473K16
	C268	CKSRYB562K50
	C391	CKSRYF104Z16
	C9003 (1F/5.5V)	PCH1132

RESISTORS

⚠	R171, R172	RS1/16S470J
⚠	R173, R174	RS1/16S472J
⚠	R311, R312	RS1LMF101J
	Other Resistors	RS1/16S###J

OTHERS

	CN105 8P CONNECTOR	52044-0845
	CN103 11P CONNECTOR	52044-1145
	CN104 13P CONNECTOR	52044-1345
	CN108 5P CONNECTOR	52045-0545
	CN101 17P CONNECTOR	52045-1745
	CN106, CN112 19P CONNECTOR	52045-1945
	CN107 CONNECTOR POST	B3B-PH-K
	CN109 18P SOCKET	KP200TA18L
	CN111 20P SOCKET	KP200TA20L
	101–103 PCB BINDER	VEF1040
	JA101–JA104 PIN JACK(4P)	XKB3017
	X5001 CRYSTAL RESONATOR (4.332 MHz)	ASS7004
	X9001 CERAMIC RESONATOR (15.7 MHz)	XSS3004

Mark No.	Description	Part No.

B DSP ASSY

SEMICONDUCTORS

	IC8201	AK4114VQ
	IC8401	AK4628VQ
	IC8501	DSPD56367PV150
	IC8601	IS61LV6416-12T
	IC8602	IS63LV1024-12T
	IC8901	NJM2391DL1-33
	IC8902	NJU7223DL1-18
	IC8603	PD8116A
	IC8101	TC74HCU04AF
	IC8701	TC74LVX244FT
	IC8702	TC74VHCT244AFT
	IC8503	TC7WH125FU
	IC8502	TC7WU04FU
	Q8504	UMD2N
	Q8503	UN5112
	Q8501	UN5212
	D8501	1SS355
	D8401	DAN202K
	D8402,D8502,D8503	DAP202K

COILS AND FILTERS

	L8002,L8004,L8501,L8502	ATL7002
	L8601-L8603 CHIP SOLID INDUCTOR	ATL7002
	L8101-L8104,L8201,L8203,L8204	QTL1013
	L8401,L8402,L8504,L8505	QTL1013
	L8701,L8702 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

	C8209,C8210	CCSRCH100D50
	C8421	CCSRCH101J50
	C8107,C8112	CCSRCH470J50
	C8007,C8008,C8109,C8201,C8212	CCSRCH471J50
	C8214,C8404,C8409-C8414	CCSRCH471J50
	C8416,C8417,C8419,C8505,C8507	CCSRCH471J50
	C8509,C8511,C8512,C8515,C8518	CCSRCH471J50
	C8520,C8522,C8524,C8526,C8528	CCSRCH471J50
	C8530,C8532,C8534,C8536,C8539	CCSRCH471J50
	C8541,C8543,C8545,C8551,C8552	CCSRCH471J50
	C8602,C8603,C8606,C8607,C8610	CCSRCH471J50
	C8703,C8706	CCSRCH471J50
	C8548,C8549	CCSRCH8R0D50
	C8701,C8704	CEV100M16
	C8105,C8406,C8415,C8546,C8547	CEV101M16
	C8613,C8902,C8904	CEV101M16
	C8217,C8225,C8408	CEV470M6R3
	C8204,C8555	CKSRYB102K50
	C8009,C8104,C8114,C8405,C8418	CKSRYB103K50
	C8517,C8554	CKSRYB103K50
	C8010,C8115,C8202,C8207,C8213	CKSRYB104K16
	C8215,C8407,C8420,C8422,C8504	CKSRYB104K16
	C8513,C8521,C8523,C8525,C8527	CKSRYB104K16
	C8529,C8531,C8533,C8535	CKSRYB104K16
	C8537,C8538,C8540,C8542,C8544	CKSRYB104K16
	C8550,C8553,C8601,C8604,C8605	CKSRYB104K16
	C8608,C8609,C8702,C8705,C8901	CKSRYB104K16
	C8903	CKSRYB104K16
	C8110,C8516	CKSRYB105K6R3
	C8514	CKSRYB333K16

Mark	No.	Description	Part No.
	C8203		CKSRYB473K50
	RESISTORS		
A	R8506		RAB4C101J
	R8201		RS1/16S1802F
	Other Resistors		RS1/16S###J
	OTHERS		
	CN8012	19P CONNECTOR	52045-1945
	JA8101	2P PIN JACK	AKB7131
	CN8003	13P SOCKET	AKP7070
	CN8007	19P SOCKET	AKP7073
	JA8102	OPT. LINK IN	GP1FA513RZB
	CN8017	10P CONNECTOR	VKN1414
B	X8501	CRYSTAL RESONATOR (20 MHz)	VSS1171
	X8201	CRYSTAL RESONATOR (24.576 MHz)	XSS3003

C AMP & PRIMARY ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
⚠	IC52	PROTECTOR(500mA)	AEK7005
⚠	IC603	PROTECTOR(1A)	AEK7009
⚠	IC604–IC607	PROTECTOR(125mA)	AEK7022
	IC701, IC702	PROTECTOR(400mA)	ICP-N10
C	IC51		NJM78M56FA
⚠	IC601, IC602		PAC011A
	Q703, Q721		2SA1145
	Q702		2SA2005
	Q696, Q697		2SC1740S
	Q704, Q722		2SC1845
	Q605, Q606, Q633, Q655, Q656		2SC2240
	Q683		2SC2240
	Q701		2SC5511
	Q601–Q604, Q631, Q632		2SC5974A
	Q651–Q654, Q681, Q682		2SC5974A
D	Q51		DTC143ES
	D56, D57, D601, D603, D606		1SS133
	D608, D631, D632, D651–D654		1SS133
	D683, D684, D751–D754		1SS133
	D757, D758		1SS133
⚠	D701, D702		D5SBA20
	D711		MTZJ22D
	D58, D712		MTZJ5.1B
	D602, D604, D681, D682		MTZJ8.2A
⚠	D51–D55, D721–D724		S5688G
E	**COILS AND FILTERS**		
	L751–L754, L761, L762		ATH1004
⚠	L51	LINE FILTER	XTF3004
	SWITCHES AND RELAYS		
	RY51		XSR3006
	RY751–RY754		XSR3007
	CAPACITORS		
	C707, C708	(0.01/AC250V)	ACG1005
	C611–C614, C636, C637		CCPUCH6R8K50
	C661–C664, C686, C687		CCPUCH6R8K50
F	C615, C616, C638, C665, C666		CEANP2R2M50
	C688		CEANP2R2M50
	C775, C776		CEANP470M50
	C712		CEAT101M10
	C609, C610, C635, C659, C660		CEAT101M16
	C685		CEAT101M16
	C711		CEAT101M35
	C53		CEAT102M16
	C697		CEAT221M10
	C54		CEAT470M25
	C605, C606, C633, C655, C656		CEAT4R7M50
	C683		CEAT4R7M50
	C705, C706		CEHAT100M2A
	C607, C608, C634, C657, C658		CKPUYB101K50
	C684		CKPUYB101K50
	C696, C769, C770		CKPUYB102K50
	C603, C604, C632, C653, C654		CKPUYB331K50
	C682		CKPUYB331K50
	C55–C57		CKPUYF103Z25
	C751–C756, C761–C764		CQMBA224J50
	C771, C772		CQMBA224J50
	C757–C759, C765–C768, C773		CQMBA472J50
	C51, C52	(10000pF/250V(AC))	XCG3009
	C703, C704	(3300/42V)	XCH3012
	C701, C702	(4700/71V)	XCH3013
	RESISTORS		
	R617, R622, R639, R667, R668		ACN7094
	R691	(0.22/5W)	ACN7094
⚠	R52		RD1/2PM270J
⚠	R615		RD1/4PU331J
⚠	R751, R752, R755, R761, R762		RD1/4PUF101J
⚠	R772		RD1/4PUF101J
⚠	R753, R754, R756, R763, R764		RS1LMF4R7J
⚠	R771		RS1LMF4R7J
⚠	R711		RS2LMF332J
	Other Resistors		RD1/4PU###J
	OTHERS		
	CN604	7P CONNECTOR	52045-0745
	CN53	23P CONNECTOR	52045-2345
	CN702	6P JUMPER CONNECTOR	52147-0610
	H51, H52	FUSE CLIP	AKR7001
⚠	T51	STANDBY TRANSFORMER	ATT7040
	CN601	18P PLUG	KM200TA18
	CN51	AC CODE SOCKET	RKP1751
	KN51, KN601	EARTH METAL FITTING	VNF1084
	CN751	SP TERMINAL 8-P(V0)	XKE3017
	CN753	SP TERMINAL 6-P(V0)	XKE3018
	CN752	SP TERMINAL 4-P(V0)	XKE3019
⚠	701	7P CABLE HOLDER	XKP3047

D TRANS2 ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
⚠	IC853	PROTECTOR (3A)	AEK7015
⚠	IC851, IC852	PROTECTOR (4A)	AEK7018
	OTHERS		
	851	7P CABLE HOLDER	XKP3047

E TRANS3 ASSY

TRANS3 ASSY has no service part.

Mark	No.	Description	Part No.

F REGULATOR ASSY

SEMICONDUCTORS

	IC803, IC804	NJM78M05FA
	IC801, IC805	NJM78M12FA
	IC806	NJM78M56FA
	IC802	NJM79M12FA
	Q801, Q803, Q805	DTA124ES
	Q802, Q804, Q806	DTC114ES
	D809–D811	MTZJ6.2B
⚠	D801–D804	S5688G

CAPACITORS

	C811, C815	CEAT101M10
	C813	CEAT101M16
	C801, C802	CEAT222M25
	C809	CEAT472M16
	C808	CEHAT101M10
	C805, C806	CEHAT101M16
	C803, C804, C807, C810, C812	CKPUYF103Z25
	C814	CKPUYF103Z25

RESISTORS

	R801	RS3LMF331J

OTHERS

	CN801 23P CONNECTOR	52045-2345
	CN805 13P PLUG	AKP7059
	CN806 19P PLUG	AKP7062
	CN804 18P PLUG	KM200TA18
	CN802 20P PLUG	KM200TA20
	CN803 7P PLUG	KM200TA7

G AMP INPUT ASSY

SEMICONDUCTORS

	IC251	NJM4558D-D
	Q257	2SA933S
	Q251, Q256	2SC5974A
	Q252	2SD1858X
	Q254	DTA124ES
	Q253, Q255	DTC124ES
	D251, D252	1SS133
	D253	MTZJ27D
	D254	MTZJ5.1B

CAPACITORS

	C251	CEANP470M25
	C254	CEAT101M25
	C252, C253	CKPUYF103Z25

RESISTORS

	All Resistors	RD1/4PU###J

OTHERS

	CN251 3P CONNECTOR	52044-0345
	CN254 19P CONNECTOR	52044-1945
	CN253 18P SOCKET	KP200TA18L
	CN252 3PIN CONNECTOR	S3B-EH

H TRANS1 ASSY

TRANS1 ASSY has no service part.

I VIDEO ASSY

SEMICONDUCTORS

	IC301	NJM2595M
	Q302	2SA1515
	Q303	2SC3326
	Q301	2SC3377
	D301, D302, D305, D306	1SS355
	D307	UDZS5.1B
	D303, D304	UDZS6.2B

COILS AND FILTERS

	L301–L306 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

	C347	CCSRCH470J50
	C307–C310, C312, C314, C338	CEAT470M25
	C1360,C302, C379	CKSRYB103K50
	C339, C340	CKSRYB104K25
	C304–C306	CKSRYB221K50
	C333	CKSRYB331K50
	C311, C313	CKSRYB473K25

RESISTORS

⚠	R313, R316	RS3LMF390J
	Other Resistors	RS1/16S###J

OTHERS

	CN303 13P CONNECTOR	52044-1345
	JA305 PIN JACK(4P)YELLOW	AKB7100
	CN302 7P SOCKET	KP200TA7L
	CN301 9P SOCKET	KP200TA9L
	JA352 JACK	RKN1026
	CN306 2P PIN JACK	XKB3041
	JA351 MINI JACK(4P) /W SW	XKN3015

J 5.1CH ASSY

CAPACITORS

	C342–C345	CCSRCH101J50
	C321, C324, C331, C332	CEAT4R7M50
	C1364	CKSRYB102K50
	C316	CKSRYB103K50
	C317, C318, C325, C326	CKSRYB221K50

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	CN307 8P CONNECTOR	52044-0845
	CN309 PIN JACK(4P)	XKB3035

K B TO B ASSY

OTHERS

	CN392 5P CONNECTOR	52045-0545
	CN391 7P PLUG	KM200TA7
	CN390 9P PLUG	KM200TA9
	391 PCB BINDER	VEF1040

L S. VIDEO ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC351, IC352		NJM2595M
	D351–D358		1SS355
	CAPACITORS		
	C375, C376, C381–C386		CCSRCH470J50
	C352, C355, C358, C361–C363		CEAT470M25
	C366		CEAT470M25
	C372, C373		CKSRYB103K50
	C351, C353, C354, C356, C357		CKSRYB104K25
	C359, C367		CKSRYB104K25
	C364, C365, C368–C371		CKSRYB221K50
	RESISTORS		
	All Resistors		RS1/16S###J
	OTHERS		
	CN353	2-4P MINI DIN SOCKET	AKP7020
	CN352	3-4P MINI DIN SOCKET	AKP7043
	CN354	CONNECTOR POST	B5B-PH-K
	CN351	7P SOCKET	KP200TA7L

M FRONT DISPLAY ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
	IC401		PE5420A
	Q484		2SA1037K
	Q441, Q442		DTC124EK
	D403–D405		1SS355
	D401		DAN202K
	D500		SLI-343DCW
	COILS AND FILTERS		
	L401		LFEA2R2J
	CAPACITORS		
	C482, C483		CCSRCH221J50
	C481		CCSRCH471J50
	C442		CEAL470M10
	C403		CEAT221M6R3
	C412		CEAT470M50
	C415, C454		CKSRYB102K50
	C401, C402, C410, C411, C419		CKSRYB103K50
	C441		CKSRYB103K50
	C418, C421		CKSRYB104K16
	C420 (220uF/35V)		XCH3011
	RESISTORS		
	All Resistors		RS1/16S###J
	OTHERS		
	471	11P CABLE HOLDER	51048-1100
	404	CABLE HOLDER (7P)	51063-0705
	CN401	17P CONNECTOR	52044-1745
	CN450	7PJUMPER CONNECTOR	52151-0710
	V401	FL TUBE	XAV3022
	X401	CERAMIC RESONATOR (5 MHz)	VSS1142
	401	REMOTE RECEIVERUNIT	GP1UM28XK

N R. ENCODER ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
	D512		SLI-343DCW
	D511		UDZS5.6B
	SWITCHES AND RELAYS		
	S511		VSG1024
	S513	ROTARY ENCODER	XSX3005
	S512	ROTARY ENCODER	XSX3006
	RESISTORS		
	All Resistors		RS1/16S###J
	OTHERS		
	511	CABLE HOLDER (7P)	51063-0705

O P. SW & FUNC. KEY ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
	D501–D508		SLI-343DCW
	SWITCHES AND RELAYS		
	S501–S509		VSG1024
	RESISTORS		
	All Resistors		RS1/16S###J

P FRONT KEY ASSY

Mark	No.	Description	Part No.
	SWITCHES AND RELAYS		
	S451–S469		VSG1024
	CAPACITORS		
	C451–C453		CKSRYB102K50
	RESISTORS		
	All Resistors		RS1/16S###J
	OTHERS		
	550	7P CABLE HOLDER	51048-0700

Q TRANS4 ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
	IC891, IC892	PROTECTOR (630mA)	AEK7006
	D891		S1WB(A)60SD
	CAPACITORS		
	C891, C892		CEAT471M35
	OTHERS		
	CN891	3P CONNECTOR	52045-0345

R H.P. ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
	Q1551,Q1552		2SC3326
	CAPACITORS		
	C1554,C1557		CCSRCH471J50
	C1553,C1556		CKSRYB103K50
	C1555,C1558		CKSRYB104K16
	C1551,C1552		CKSRYB223K50
	RESISTORS		
⚠	R1553,R1554		RS1LMF151J
⚠	R1551,R1552		RS2LMF331J
	Other Resistors		RS1/16S###J

Mark No.	Description	Part No.
OTHERS		
1551	6P CABLE HOLDER	51048-0600
JA1551	HEADPHONE JACK	RKB1014
KN1551	EARTH METAL FITTING	VNF1084

S PRE-OUT ASSY

Mark No.	Description	Part No.
CAPACITORS		
C1581		CKSRYB103K50
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
CN1575	7P CONNECTOR	52045-0745
1575	PIN JACK(6P)	XKB3033

T DIGITAL IN ASSY

Mark No.	Description	Part No.
COILS AND FILTERS		
F1901	CHIP BEAD	DTF1067
CAPACITORS		
C1907,C1909		CCSRCH101J50
C1904		CEAL101M10
C1908		CKSRYB102K50
C1903,C1906		CKSRYB103K50
C1901,C1902,C1905		CKSRYB104K25
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
CN1902	CONNECTOR POST	B5B-PH-K
JA1901	OPT. LINK IN	GP1FA513RZB
JA1902	OPT. LINK OUT 12MB/S	GP1FA513TZ
CN1901	10P CONNECTOR	VKN1186
KN1901	WRAPPING TERMINAL	VNF1084

U COMPORNENT ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
IC552		NJM2581M
IC551		TC74HC4053AF
D551, D552		1SS355
CAPACITORS		
C551–C554		CEAT101M10
C555–C562, C566, C568		CKSRYB103K50
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
CN551	5P CONNECTOR	52045-0545
JA553	3P RCA PINJACK	AKB7124
JA551	6P RCA PINJACK	XKB3025

V FRONT OPT ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
IC951		UPC4570G2
D951–D953		UDZS5.1B
COILS AND FILTERS		
F951	CHIP BEAD	DTF1067
CAPACITORS		
C901, C902, C915, C916, C960		CCSRCH101J50
C965		CCSRCH330J50
C952, C959		CCSRCH471J50
C903, C905		CEAL470M25
C956, C958, C963, C966, C967		CEAT100M50
C908, C911, C914, C953, C957		CKSRYB103K50
C962		CKSRYB103K50
C904, C906, C909, C912, C951		CKSRYB104K25
C954		CKSRYB104K25
C907, C910, C913		CKSRYB471K50
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
CN952	CONNECTOR 5P	52045-0545
CN951	CONNECTOR POST	B5B-PH-K
CN901	CONNECTOR	B8B-PH-K
JA951	OPTICAL IN MOD.	GP1FM513RZ
JA952	JACK	RKN1004
KN951	WRAPPING TERMINAL	VNF1084
JA902	PIN JACK(4P)	XKX3003

W FM/AM TUNER UNIT

FM/AM TUNER UNIT has no service part.

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

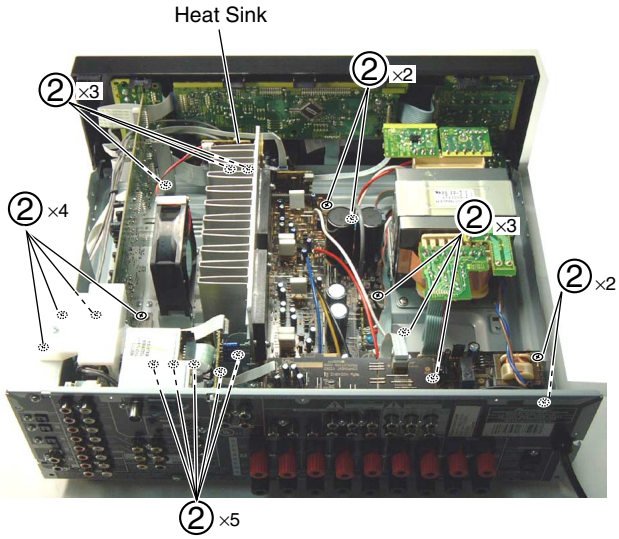
7.1 DIAGNOSIS

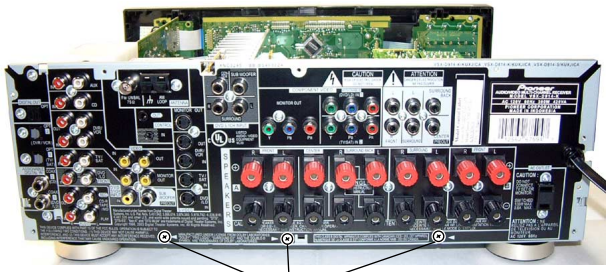
7.1.1 DISASSEMBLY

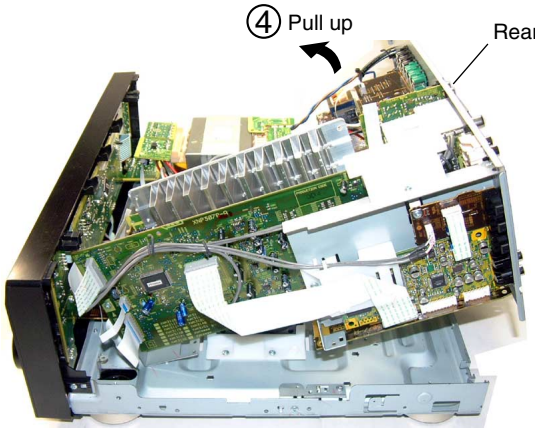
■ Diagnosis

Note : This photograph may show a different model.
however, the method for disassembly is the same.

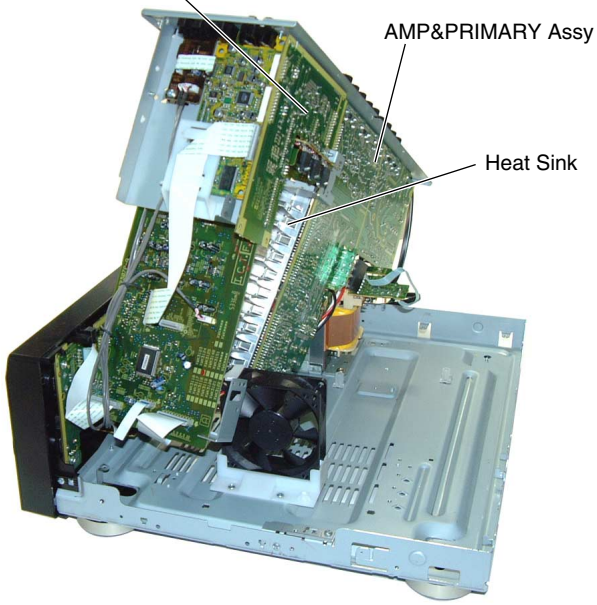
① Remove the top cover (seven screws).





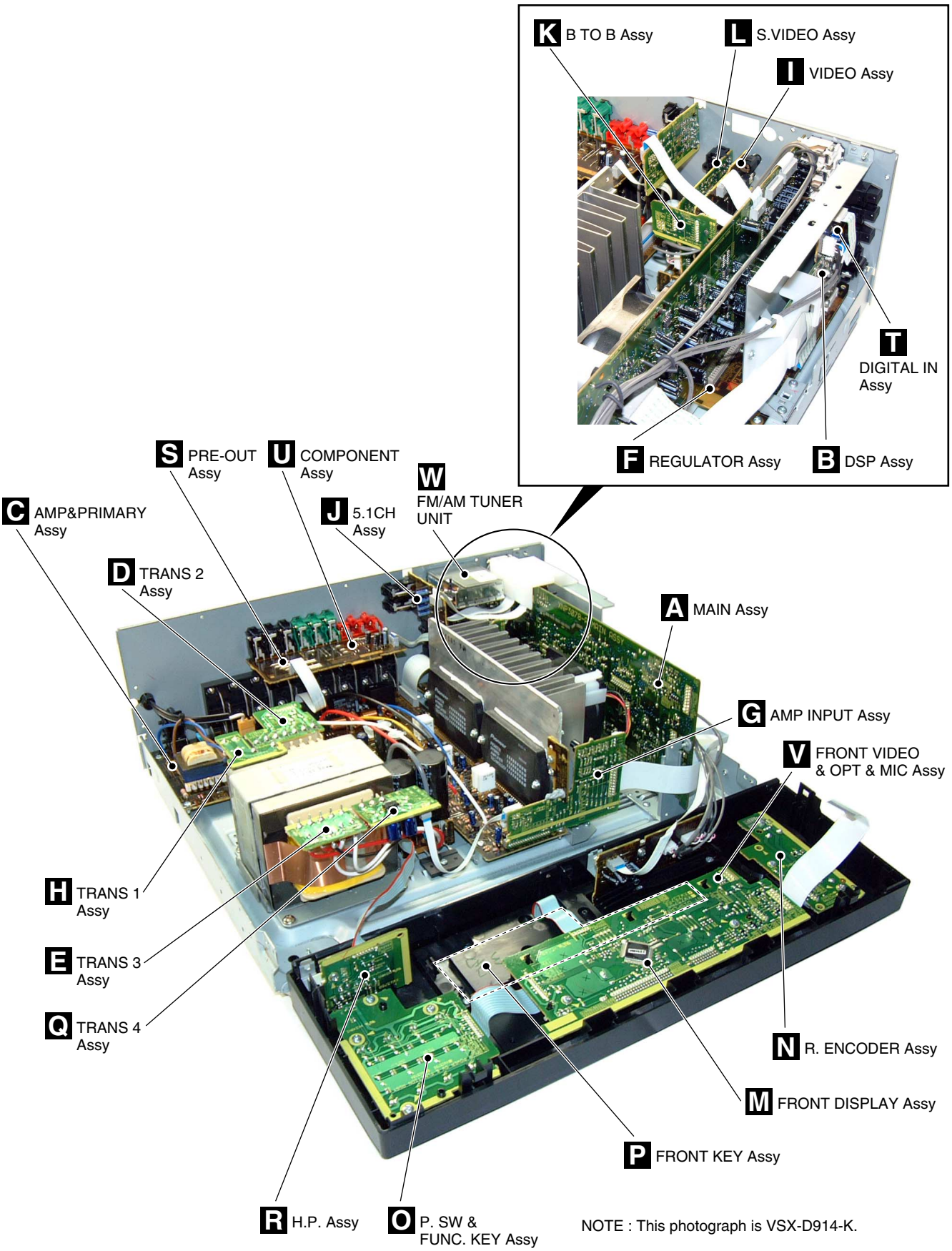


⑤ Diagnosis



Note : The unit does not operate when the screws of Speaker Terminal are taken off from Rear Panel.

Heat-sink caution in the disassembling : Because Heat-sink becomes hot, please pay attention.



NOTE : This photograph is VSX-D914-K.

7.2 PARTS
7.2.1 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

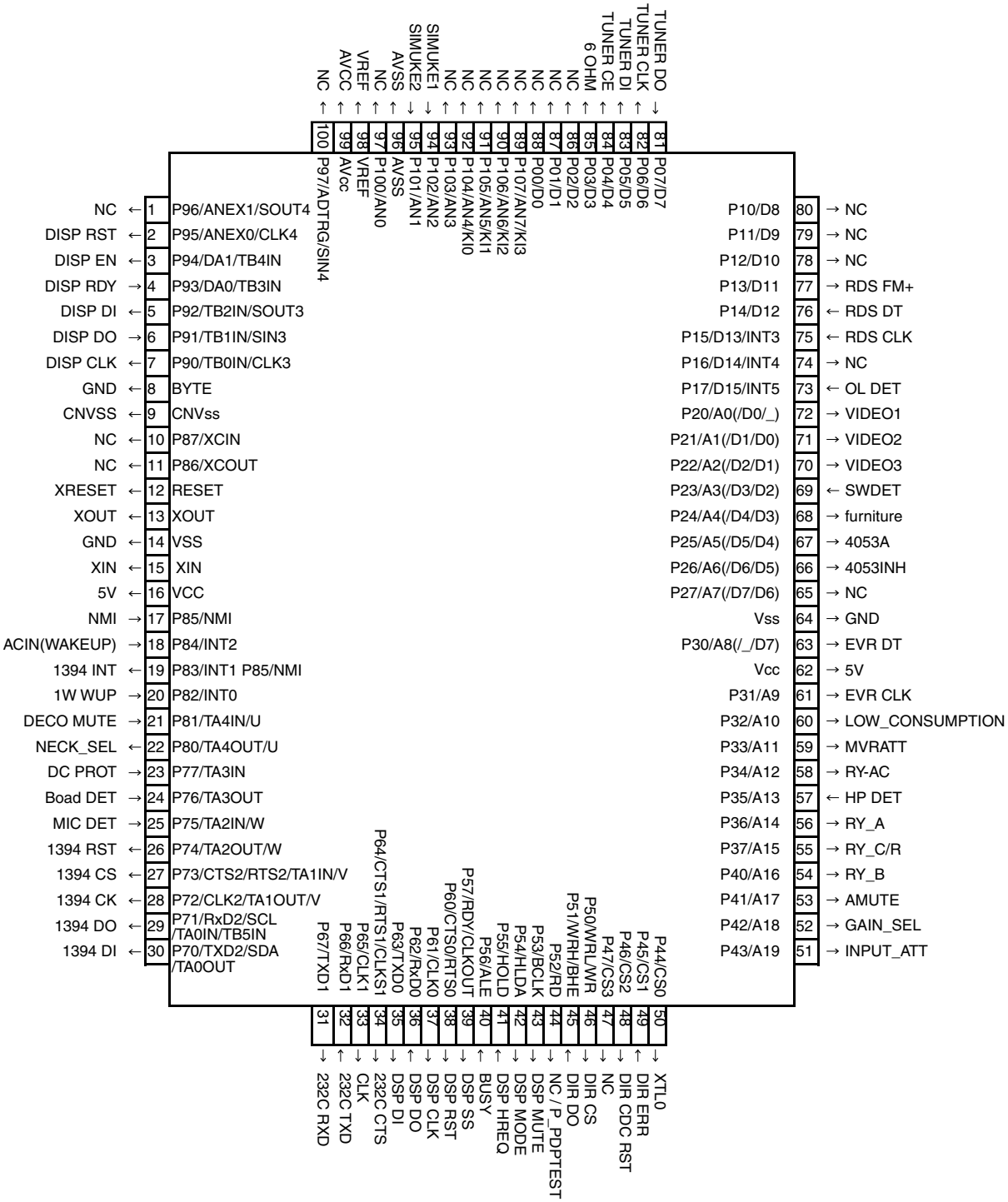
• List of IC

PEG062A, PE5420A

■ PEG062A (MAIN ASSY : IC9001)

• System Control MCU

■ Pin Arrangement (Top View)


1 NC ← P96/ANEX1/SOUT4
2 DISP RST ← P95/ANEX0/CLK4
3 DISP EN ← P94/DA1/TB4IN
4 DISP RDY → P93/DA0/TB3IN
5 DISP DI ← P92/TB2IN/SOUT3
6 DISP DO → P91/TB1IN/SIN3
7 DISP CLK ← P90/TB0IN/CLK3
8 GND ← BYTE
9 CNVSS ← CNVss
10 NC ← P87/XCIN
11 NC ← P86/XCOUT
12 XRESET ← RESET
13 XOUT ← XOUT
14 GND ← VSS
15 XIN ← XIN
16 5V ← VCC
17 NMI → P85/NMI
18 ACIN(WAKEUP) → P84/INT2
19 1394 INT ← P83/INT1 P85/NMI
20 1W WUP → P82/INT0
21 DECO MUTE → P81/TA4IN/U
22 NECK_SEL ← P80/TA4OUT/U
23 DC PROT → P77/TA3IN
24 Boad DET → P76/TA3OUT
25 MIC DET → P75/TA2IN/W
26 1394 RST ← P74/TA2OUT/W
27 1394 CS ← P73/CTS2/RTS2/TA1IN/V
28 1394 CK ← P72/CLK2/TA1OUT/V
29 1394 DO ← P71/RxD2/SCL /TA0IN/TB5IN
30 1394 DI ← P70/TXD2/SDA /TA0OUT
31 P67/TXD1 → 232C RXD
32 P66/RxD1 ← 232C TXD
33 P65/CLK1 → CLK
34 P64/CTS1/RTS1/CLKS1 → 232C CTS
35 P63/TXD0 → DSP DI
36 P62/RxD0 ← DSP DO
37 P61/CLK0 → DSP CLK
38 P60/CTS0/RTS0 → DSP RST
39 P57/RDY/CLKOUT → DSP SS
40 P56/ALE ← BUSY
41 P55/HOLD ← DSP HREQ
42 P54/HLDA → DSP MODE
43 P53/BCLK → DSP MUTE
44 P52/RD → NC / P_PDPTEST
45 P51/WRH/BHE ← DIR DO
46 P50/WRL/WR → DIR CS
47 P47/CS3 → NC
48 P46/CS2 → DIR CDC RST
49 P45/CS1 ← DIR ERR
50 P44/CS0 → XTL0
51 P43/A19 → INPUT_ATT
52 P42/A18 → GAIN_SEL
53 P41/A17 → AMUTE
54 P40/A16 → RY_B
55 P37/A15 → RY_C/R
56 P36/A14 → RY_A
57 P35/A13 ← HP DET
58 P34/A12 → RY-AC
59 P33/A11 → MVRATT
60 P32/A10 → LOW_CONSUMPTION
61 P31/A9 → EVR CLK
62 Vcc → 5V
63 P30/A8(/_/D7) → EVR DT
64 Vss → GND
65 P27/A7(/D7/D6) → NC
66 P26/A6(/D6/D5) → 4053INH
67 P25/A5(/D5/D4) → 4053A
68 P24/A4(/D4/D3) → furniture
69 P23/A3(/D3/D2) → SWDET
70 P22/A2(/D2/D1) → VIDEO3
71 P21/A1(/D1/D0) → VIDEO2
72 P20/A0(/D0/_) → VIDEO1
73 P17/D15/INT5 ← OL DET
74 P16/D14/INT4 → NC
75 P15/D13/INT3 ← RDS CLK
76 P14/D12 ← RDS DT
77 P13/D11 → RDS FM+
78 P12/D10 → NC
79 P11/D9 → NC
80 P10/D8 → NC
81 P07/D7 ↓ TUNER DO
82 P06/D6 ↑ TUNER CLK
83 P05/D5 ↑ TUNER DI
84 P04/D4 ↑ TUNER CE
85 P03/D3 ↑ 6 OHM
86 P02/D2 ↑ NC
87 P01/D1 ↑ NC
88 P00/D0 ↑ NC
89 P107/AN7/KI3 ↑ NC
90 P106/AN6/KI2 ↑ NC
91 P105/AN5/KI1 ↑ NC
92 P104/AN4/KI0 ↑ NC
93 P103/AN3 ↑ NC
94 P102/AN2 ↓ SIMUKE1
95 P101/AN1 ↓ SIMUKE2
96 AVSS ↑ AVSS
97 P100/AN0 ↑ NC
98 VREF ↑ VREF
99 AVcc ↑ AVCC
100 P97/ADTRG/SIN4 ↑ NC

• Pin Function

No.	Port	Pin Name	I/O	Pin Function
1	P96/ANEX1/SOUT4	NC	I/O	
2	P95/ANEX0/CLK4	DISP RST	I/O	Reset signal to display u-com
3	P94/DA1/TB4IN	DISP EN	I/O	Enable signal to display u-com
4	P93/DA0/TB3IN	DISP RDY	I/O	Ready signal from display u-com
5	P92/TB2IN/SOUT3	DISP DI	I/O	Data out to display u-com
6	P91/TB1IN/SIN3	DISP DO	I/O	Data input from display u-com
7	P90/TB0IN/CLK3	DISP CLK	I/O	Clock signal to display u-com
8	BYTE	GND		
9	CNVss	CNVSS		
10	P87/XCIN	NC	I/O	
11	P86/XCOUT	NC	I/O	
12	RESET	XRESET		
13	XOUT	XOUT		
14	VSS	GND		
15	XIN	XIN		
16	VCC	5V		
17	P85/NMI	NMI	I	No use
18	P84/INT2	ACIN(WAKEUP)	I/O	AC pulse input
19	P83/INT1 P85/NMI	1394 INT	I/O	No use (Standby for 1394)
20	P82/INT0	1W WUP	I/O	Wake up signal from display u-com
21	P81/TA4IN/U	DECO MUTE	I/O	1st DSP detect port
22	P80/TA4OUT/U	NECK_SEL	I/O	5.1ch, surround mode and A+B Stereo : H / Stereo : L
23	P77/TA3IN	DC PROT	I/O	AMP DC detect
24	P76/TA3OUT	Boad DET	I/O	AMP INPUT ASSY detect, H : detected
25	P75/TA2IN/W	MIC DET	I/O	MIC detect , L : detect
26	P74/TA2OUT/W	1394 RST	I/O	No use (Standby for 1394)
27	P73/CTS2/RTS2/TA1IN/V	1394 CS	I/O	No use (Standby for 1394)
28	P72/CLK2/TA1OUT/V	1394 CK	I/O	No use (Standby for 1394)
29	P71/RxD2/SCL/TA0IN/TB5IN	1394 DO	I/O	No use (Standby for 1394)
30	P70/TXD2/SDA/TA0OUT	1394 DI	I/O	No use (Standby for 1394)
31	P67/TXD1	232C RXD	I/O	For rewriting 232C (Data output)
32	P66/RxD1	232C TXD	I/O	For rewriting 232C (Data input)
33	P65/CLK1	CLK	I/O	It is necessary when writing for JIG
34	P64/CTS1/RTS1/CLKS1	232C CTS	I/O	For rewriting 232C (Admit communication)
35	P63/TXD0	DSP DI	I/O	Data output signal for communication with DSP and DIR
36	P62/RxD0	DSP DO	I/O	Data input signal for communication with DSP
37	P61/CLK0	DSP CLK	I/O	Clock signal for communication with DSP and DIR
38	P60/CTS0/RTS0	DSP RST	I/O	Reset signal for DSP
39	P57/RDY/CLKOUT	DSP SS	I/O	Srobe select signal to DSP
40	P56/ALE	BUSY	I/O	Use it in MCACC
41	P55/HOLD	DSP HREQ	I/O	DSP error detect signal
42	P54/HLDA	DSP MODE	I/O	Mode select of DSP (ROM/RAM)
43	P53/BCLK	DSP MUTE	I/O	DSP ASSY mute
44	P52/RD	NC / P_PDPTEST	I/O	For SR+ testmode only
45	P51/WRH/BHE	DIR DO	I/O	Data input signal for communication with DIR/DAC
46	P50/WRL/WR	DIR CS	I/O	Chip select signal for communication with DIR/DAC
47	P47/CS3	NC	I/O	
48	P46/CS2	DIR CDC RST	I/O	Reset signal for DIR CODEC
49	P45/CS1	DIR ERR	I/O	lock/unlock signal
50	P44/CS0	XTL0	I/O	DIR X'tal change

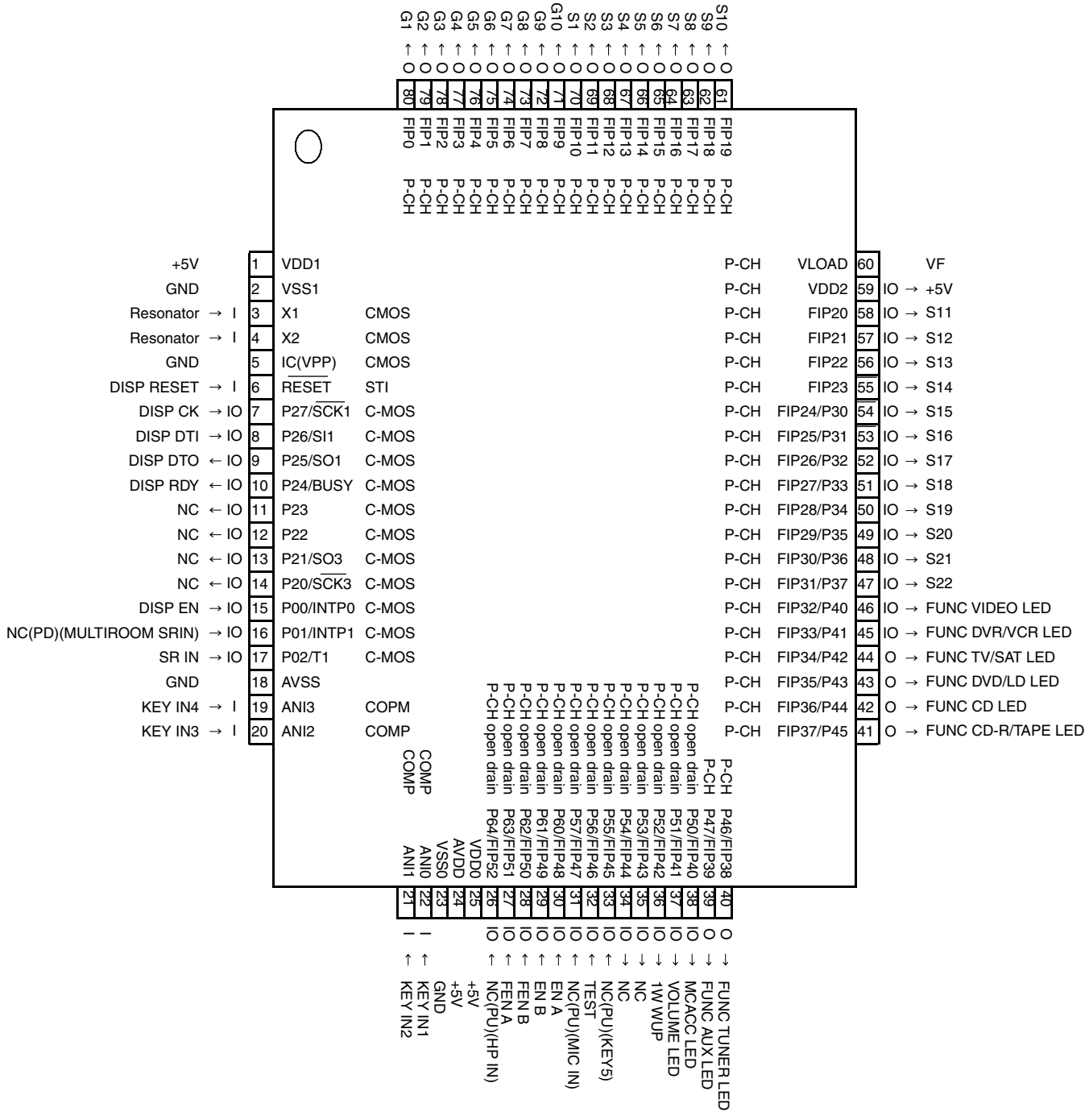
• Pin Function

No.	Port	Pin Name	I/O	Pin Function
51	P43/A19	INPUT_ATT	I/O	Analog input ATT(H : ATT ON)
52	P42/A18	GAIN_SEL	I/O	Gain select (5.1ch and Stereo of analog input : H)
53	P41/A17	AMUTE	I/O	System mute
54	P40/A16	RY_B	I/O	Speaker B relay ON/OFF
55	P37/A15	RY_C/R	I/O	Rear/Center Speaker relay ON/OFF
56	P36/A14	RY_A	I/O	Speaker A relay ON/OFF
57	P35/A13	HP DET	I/O	HP detect, H : detected
58	P34/A12	RY-AC	I/O	AC relay ON/OFF
59	P33/A11	MVRATT	I/O	ATT control of master volume (less than -15dB : L)
60	P32/A10	LOW_CONSUMPTION	I/O	If stop mode, port L, else H
61	P31/A9	EVR CLK	I/O	Clock signal for Function and E-volume
62	Vcc	5V		
63	P30/A8(/_/D7)	EVR DT	I/O	Data signal for Function and E-volume
64	Vss	GND		
65	P27/A7(/D7/D6)	NC	I/O	
66	P26/A6(/D6/D5)	4053INH	I/O	Component terminal control
67	P25/A5(/D5/D4)	4053A	I/O	Component terminal control
68	P24/A4(/D4/D3)	furniture	I/O	Furniture control signal
69	P23/A3(/D3/D2)	SWDET	I/O	SWSP detect
70	P22/A2(/D2/D1)	VIDEO3	I/O	SWSP detect
71	P21/A1(/D1/D0)	VIDEO2	I/O	SWSP detect
72	P20/A0(/D0/_)	VIDEO1	I/O	NJM2296 control (VIDEO input select)
73	P17/D15/INT5	OL DET	I/O	Detect overload of AMP
74	P16/D14/INT4	NC	I/O	
75	P15/D13/INT3	RDS CLK	I/O	Clock input signal for RDS module
76	P14/D12 RDS	RDS DT/NC	I/O	Data input signal for RDS module
77	P13/D11 RDS	RDS FM+/NC	I/O	Power ON/OFF of RDS decoder
78	P12/D10	NC	I/O	
79	P11/D9	NC	I/O	
80	P10/D8	NC	I/O	
81	P07/D7	TUNER DO	I/O	Data input signal for tuner contorol
82	P06/D6	TUNER CLK	I/O	Clock signal for tuner contorol
83	P05/D5	TUNER DI	I/O	Data output signal for tuner contorol
84	P04/D4	TUNER CE	I/O	Chip select signal for tuner contorol
85	P03/D3	6 OHM	I/O	If stop mode, port L, else L/H depends on selection.
86	P02/D2	NC	I/O	
87	P01/D1	NC	I/O	
88	P00/D0	NC	I/O	
89	P107/AN7/KI3	NC	I/O	
90	P106/AN6/KI2	NC	I/O	
91	P105/AN5/KI1	NC	I/O	
92	P104/AN4/KI0	NC	I/O	
93	P103/AN3	NC	I/O	
94	P102/AN2	SIMUKE1	I/O	Input 1 to switch region
95	P101/AN1	SIMUKE2	I/O	Input 2 to switch region
96	AVSS	AVSS		Connect to VSS
97	P100/AN0	NC	I/O	
98	VREF	VREF		Connect to VCC
99	AVcc	AVCC		Connect to VCC
100	P97/ADTRG/SIN4	NC	I/O	

■ PE5420A (FRONT ASSY : IC401)

• System Control MCU

■ Pin Arrangement (Top View)


+5V 1 VDD1
GND 2 VSS1
Resonator → I 3 X1 CMOS
Resonator → I 4 X2 CMOS
GND 5 IC(VPP) CMOS
DISP RESET → I 6 RESET STI
DISP CK → IO 7 P27/SCK1 C-MOS
DISP DTI → IO 8 P26/SI1 C-MOS
DISP DTO ← IO 9 P25/SO1 C-MOS
DISP RDY ← IO 10 P24/BUSY C-MOS
NC ← IO 11 P23 C-MOS
NC ← IO 12 P22 C-MOS
NC ← IO 13 P21/SO3 C-MOS
NC ← IO 14 P20/SCK3 C-MOS
DISP EN → IO 15 P00/INTP0 C-MOS
NC(PD)(MULTIROOM SRIN) → IO 16 P01/INTP1 C-MOS
SR IN → IO 17 P02/T1 C-MOS
GND 18 AVSS
KEY IN4 → I 19 ANI3 COPM
KEY IN3 → I 20 ANI2 COMP
P-CH VLOAD 60 VF
P-CH VDD2 59 IO → +5V
P-CH FIP20 58 IO → S11
P-CH FIP21 57 IO → S12
P-CH FIP22 56 IO → S13
P-CH FIP23 55 IO → S14
P-CH FIP24/P30 54 IO → S15
P-CH FIP25/P31 53 IO → S16
P-CH FIP26/P32 52 IO → S17
P-CH FIP27/P33 51 IO → S18
P-CH FIP28/P34 50 IO → S19
P-CH FIP29/P35 49 IO → S20
P-CH FIP30/P36 48 IO → S21
P-CH FIP31/P37 47 IO → S22
P-CH FIP32/P40 46 IO → FUNC VIDEO LED
P-CH FIP33/P41 45 IO → FUNC DVR/VCR LED
P-CH FIP34/P42 44 O → FUNC TV/SAT LED
P-CH FIP35/P43 43 O → FUNC DVD/LD LED
P-CH FIP36/P44 42 O → FUNC CD LED
P-CH FIP37/P45 41 O → FUNC CD-R/TAPE LED
G1 ← O 80 FIP0 P-CH
G2 ← O 79 FIP1 P-CH
G3 ← O 78 FIP2 P-CH
G4 ← O 77 FIP3 P-CH
G5 ← O 76 FIP4 P-CH
G6 ← O 75 FIP5 P-CH
G7 ← O 74 FIP6 P-CH
G8 ← O 73 FIP7 P-CH
G9 ← O 72 FIP8 P-CH
G10 ← O 71 FIP9 P-CH
S1 ← O 70 FIP10 P-CH
S2 ← O 69 FIP11 P-CH
S3 ← O 68 FIP12 P-CH
S4 ← O 67 FIP13 P-CH
S5 ← O 66 FIP14 P-CH
S6 ← O 65 FIP15 P-CH
S7 ← O 64 FIP16 P-CH
S8 ← O 63 FIP17 P-CH
S9 ← O 62 FIP18 P-CH
S10 ← O 61 FIP19 P-CH
COMP COMP
P-CH open drain P-CH P46/FIP38 39 O ↓ FUNC TUNER LED
P-CH open drain P47/FIP39 38 O ↓ FUNC AUX LED
P-CH open drain P50/FIP40 37 IO ↓ MCACC LED
P-CH open drain P51/FIP41 36 IO ↓ VOLUME LED
P-CH open drain P52/FIP42 35 IO ↓ 1W WUP
P-CH open drain P53/FIP43 34 IO ↓ NC
P-CH open drain P54/FIP44 33 IO ↓ NC
P-CH open drain P55/FIP45 32 IO ↑ NC(PU)(KEY5)
P-CH open drain P56/FIP46 31 IO ↑ TEST
P-CH open drain P57/FIP47 30 IO ↑ NC(PU)(MIC IN)
P-CH open drain P60/FIP48 29 IO ↑ EN A
P-CH open drain P61/FIP49 28 IO ↑ EN B
P-CH open drain P62/FIP50 27 IO ↑ FEN B
P-CH open drain P63/FIP51 26 IO ↑ FEN A
P-CH open drain P64/FIP52 25 IO ↑ NC(PU)(HP IN)
VDD0 24 +5V
AVDD 23 +5V
VSS0 22 GND
ANI0 21 I ↑ KEY IN1
ANI1 20 I ↑ KEY IN2

• Pin Function

No.	Port	Pin Name	I/O	Pin Function
1	VDD1	+5V	-	positive power supply
2	VSS1	GND	-	ground potential
3	X1	Resonator	I	crystal connection for system clock oscillation
4	X2	Resonator	I	crystal connection for system clock oscillation
5	IC(VPP)	GND	-	
6	RESET	DISP RESET	I	receive reset signal from main u-com
7	P27/SCK1	DISP CK	I/O	clock signal from main u-com
8	P26/SI1	DISP DTI	I/O	datain from main u-com
9	P25/SO1	DISP DTO	I/O	data out to main u-com
10	P24/BUSY	DISP RDY	I/O	ready signal from main u-com
11	P23	NC	I/O	
12	P22	NC	I/O	
13	P21/SO3	NC	I/O	
14	P20/SCK3	NC	I/O	
15	P00/INTP0	DISP EN	I/O	enable signal from main u-com
16	P01/INTP1	NC	I/O	
17	P02/T1	SR IN	I/O	remote control signal input from main room
18	AVSS	GND	-	ground potential for A/D converter
19	ANI3	KEY IN4	I	
20	ANI2	KEY IN3	I	
21	ANI1	KEY IN2	I	
22	ANI0	KEY IN1	I	
23	VSS0	GND	-	ground potential for ports
24	AVDD	'+5V	-	analog power voltage input to A/D converter
25	VDD0	'+5V	-	positive power supply to ports
26	P64/FIP52	NC	I/O	
27	P63/FIP51	FEN A	I/O	MULTI JOG(Right)
28	P62/FIP50	FEN B	I/O	MULTI JOG(Left)
29	P61/FIP49	EN B	I/O	VOLUME JOG1(-)
30	P60/FIP48	EN A	I/O	VOLUME JOG1(+)
31	P57/FIP47	NC	I/O	
32	P56/FIP46	TEST	I/O	test mode input for checker
33	P55/FIP45	NC	I/O	
34	P54/FIP44	NC	I/O	
35	P53/FIP43	NC	I/O	
36	P52/FIP42	1W WUP	I/O	output wakeup signal to main u-com
37	P51/FIP41	VOLUME LED	I/O	LED Output
38	P50/FIP40	MCACC LED	I/O	LED Output
39	P47/FIP39	FUNC AUX	I/O	LED Output
40	P46/FIP38	FUNC TUNER	I/O	LED Output

• Pin Function

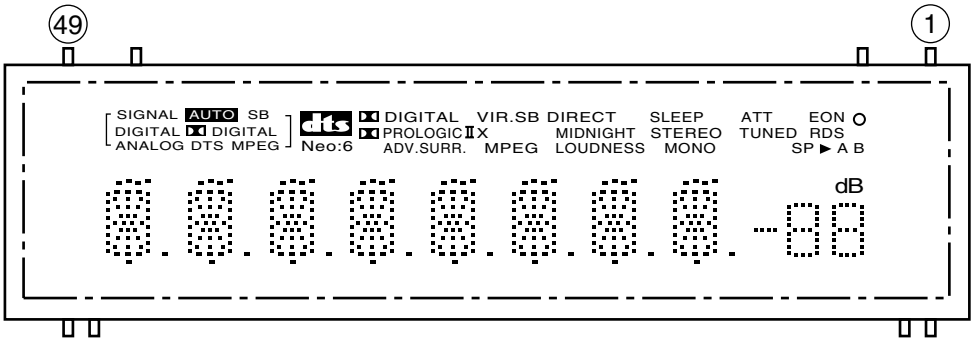
No.	Port	Pin Name	I/O	Pin Function
41	FIP37/P45	FUNC CD-R/TAPE	I/O	LED Output
42	FIP36/P44	FUNC CD	I/O	LED Output
42	FIP35/P43	FUNC DVD/LD	I/O	LED Output
44	FIP34/P42	FUNC TV/SAT	I/O	LED Output
45	FIP33/P41	FUNC DVR/VCR	I/O	LED Output
46	FIP32/P40	FUNC VIDEO	I/O	LED Output
47	FIP31/P37	S22	I/O	Display
48	FIP30/P36	S21	I/O	Display
49	FIP29/P35	S20	I/O	Display
50	FIP28/P34	S19	I/O	Display
51	FIP27/P33	S18	I/O	Display
52	FIP26/P32	S17	I/O	Display
53	FIP25/P31	S16	I/O	Display
54	FIP24/P30	S15	I/O	Display
55	FIP23	S14	O	Display
56	FIP22	S13	O	Display
57	FIP21	S12	O	Display
58	FIP20	S11	O	Display
59	VDD2	'+5V	-	positive power supply to FIP controller.
60	VLOAD	VF	-	pull down resistor connection of FIP controller
61	FIP19	S10	O	Display
62	FIP18	S9	O	Display
63	FIP17	S8	O	Display
64	FIP16	S7	O	Display
65	FIP15	S6	O	Display
66	FIP14	S5	O	Display
67	FIP13	S4	O	Display
68	FIP12	S3	O	Display
69	FIP11	S2	O	Display
70	FIP10	S1	O	Display
71	FIP9	G10	O	Display
72	FIP8	G9	O	Display
73	FIP7	G8	O	Display
74	FIP6	G7	O	Display
75	FIP5	G6	O	Display
76	FIP4	G5	O	Display
77	FIP3	G4	O	Display
78	FIP2	G3	O	Display
79	FIP1	G2	O	Display
80	FIP0	G1	O	Display

7.2.2 DISPLAY

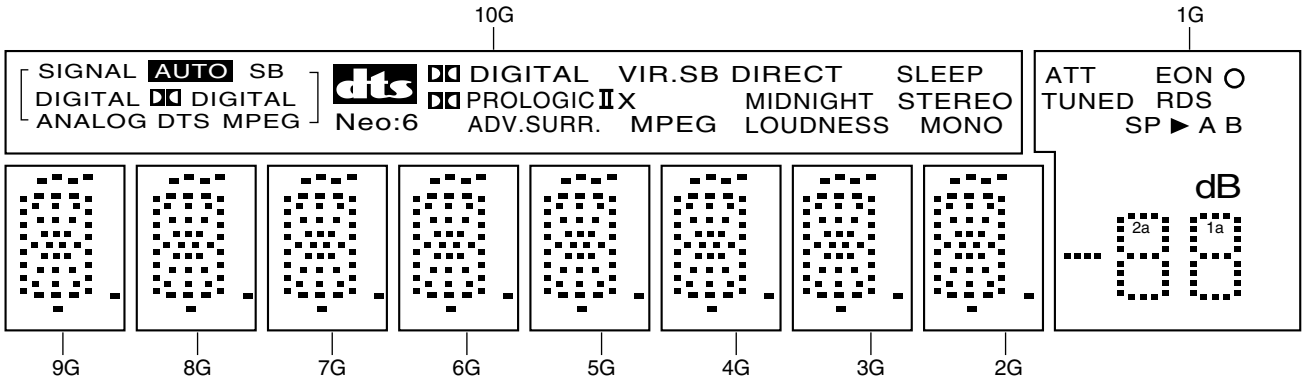
■ XAV3022 (FRONT ASSY : V401)

• FL DISPLAY

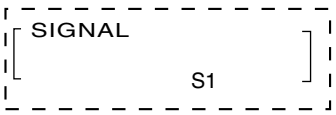
• Pin Assignment



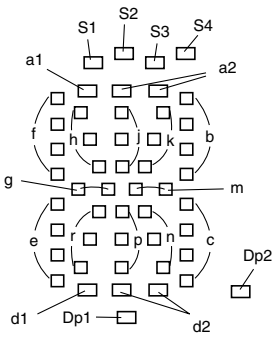
• Grid Assignment



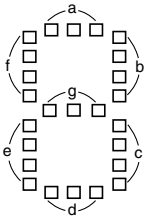
• Segment Designation



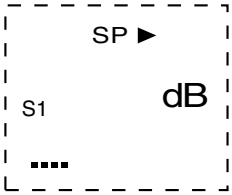
(10G)



(2G to 9G)



(1G)



(1G)

• Pin Connection

Pin No.	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
Connection	F2	F2	NP	NP	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2
Pin No.	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1	

NOTE 1) F1, F2..... Filament
2) NP..... No pin
3) NX..... No extend pin
4) DL..... Datum Line
5) 1G to 10G..... Grid
6) Field of vision is a minimum of 21.8° from the lower side.

• Anode Connection

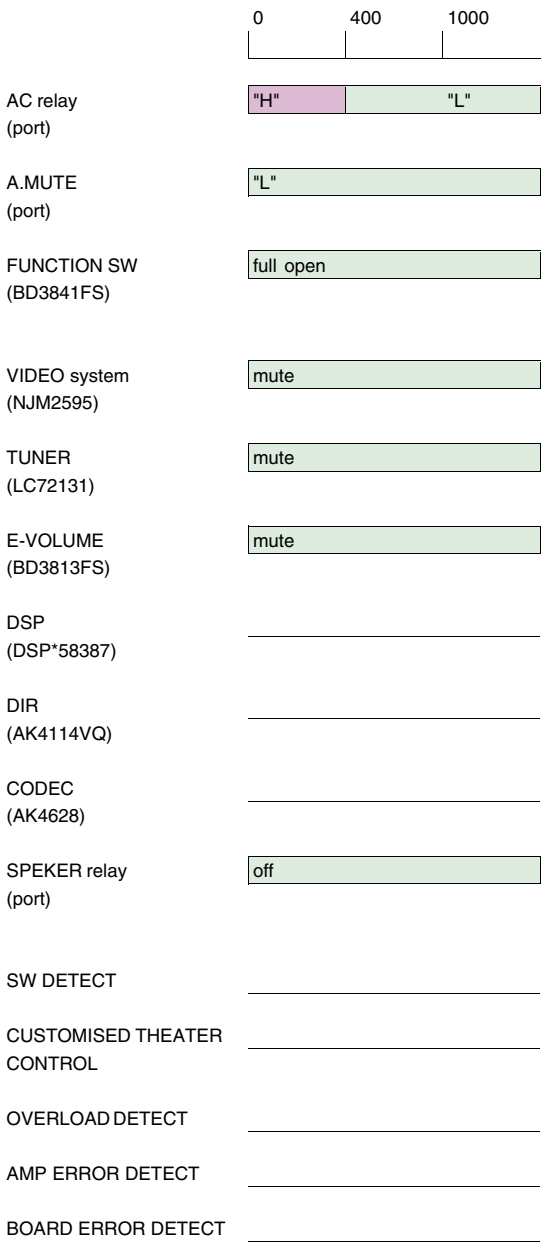
	10G	9G-2G	1G
P1	S1	a1	ATT
P2	AUTO	a2	EON
P3	SB	h	○
P4	DIGITAL	j	TUNED
P5	ANALOG	k	RDS
P6	DIGITAL (L)	b	S1
P7	DTS	f	A
P8	MPEG (L)	m	B
P9	dts	g	1a
P10	MPEG (R)	c	1b
P11	DIGITAL (R)	e	1f
P12	PRO LOGIC Π	r	1g
P13	Neo:6	p	1c
P14	VIR.SB	n	1e
P15	ADV.SURR.	d1	1d
P16	X	d2	2a
P17	DIRECT	Dp2	2b
P18	MIDNIGHT	Dp1	2f
P19	LOUDNESS	S1	2g
P20	SLEEP	S4	2c
P21	STEREO	S2	2e
P22	MONO	S3	2d

7.3 EXPLANATION

7.3.1 POWER ON AND OFF INITIAL TIMING CHART

■ **POWER ON INITIAL TIMING CHART**

■ POWER OFF INITIAL TIMING CHART



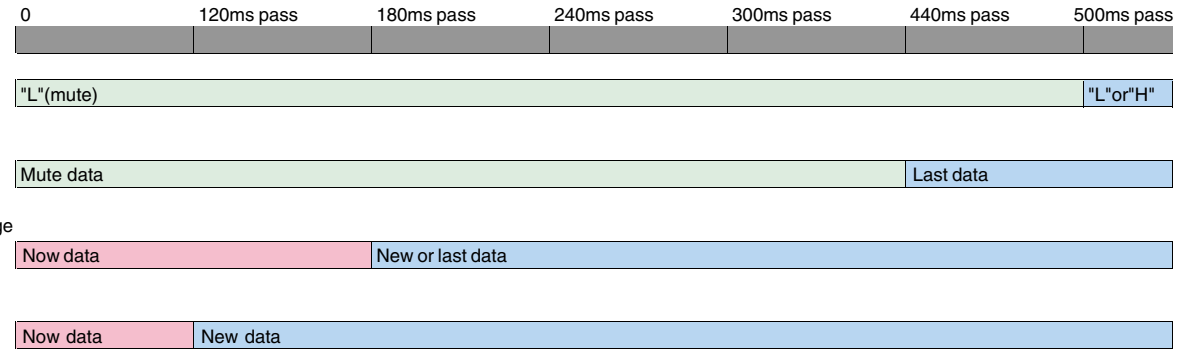
7.3.2 IC DATA TRANSMISSION TIMING CHART

■ IC data transmission timing chart

1.When function chage

condition of mute cancel (system mute & E-volume mute)
1) when tuner mute during Tuner function
2) when communicate to DSP
3) when initial processing
4) when detect trouble of AMP DC
5) when detect overload of AMP
6) when Power off
7) when muting by key input

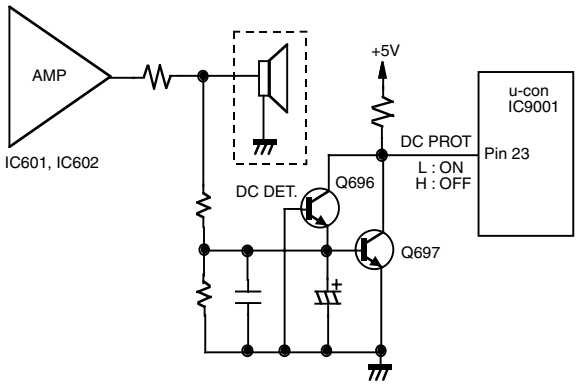
2.When except function chage



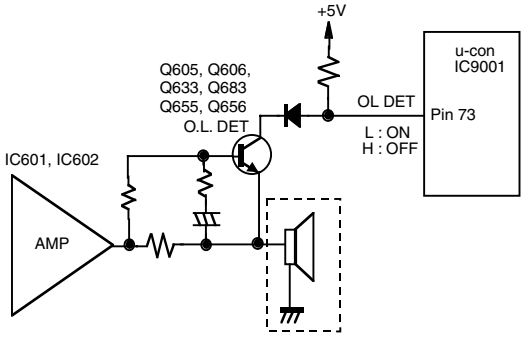
condition of mute cancel (system mute & E-volume mute)
1) when tuner mute during Tuner function
2) when communicate to DSP
3) when initial processing
4) when detect trouble of AMP DC
5) when detect overload of AMP
6) when Power off
7) when muting by key input

7.3.3 DETECTION CIRCUIT

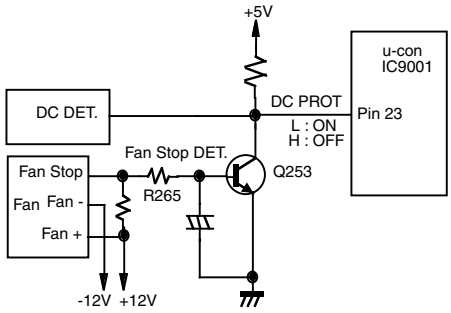
1.DC Detection Circuit Diagram:



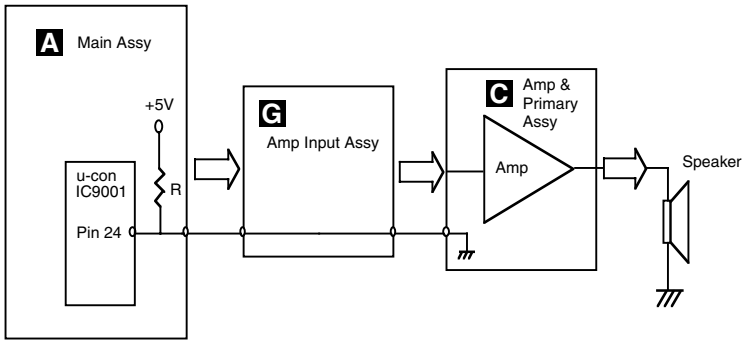
2. Overload Detection Circuit Diagram:



3. Fan Stop Prottection Circuit Diagram:



4. PCB Board Protection Circuit Diagram

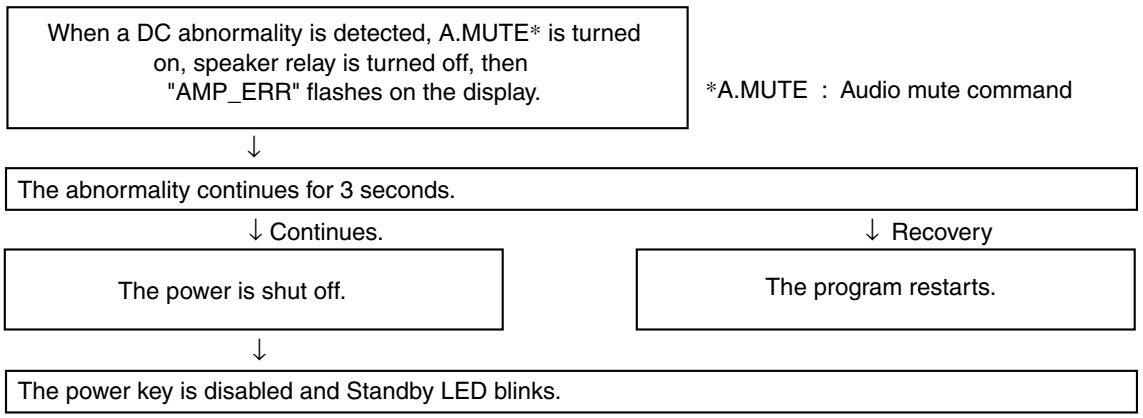


7.3.4 AMPLIFIER SYSTEM PROTECTION OPERATION SPECIFICATION

1. DC-abnormality detection

If there is a fault in the power amplifier or a high-level signal lower than 5 Hz is input, the DC_DET port becomes “L”.
If the “L” is detected, the microprocessor will perform as following flow chart.

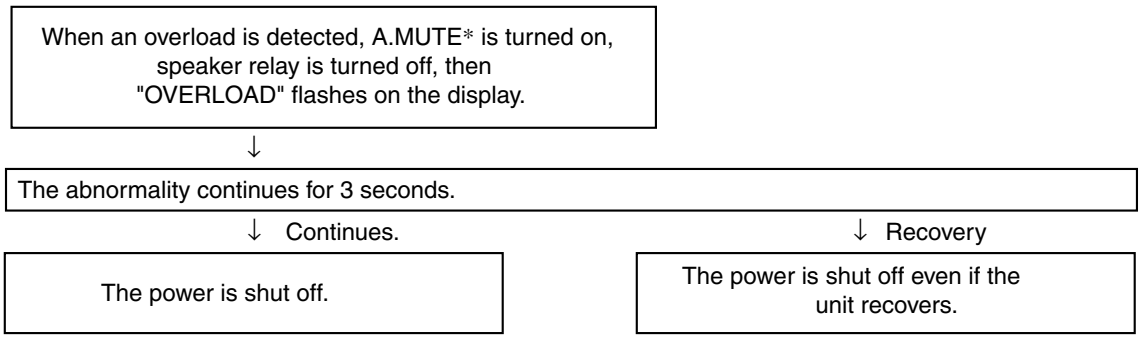
In the case of simultaneous detection with the overload protection circuit, DC-abnormality detection is performed preferentially to overload detection.


When a DC abnormality is detected, A.MUTE* is turned on, speaker relay is turned off, then "AMP_ERR" flashes on the display.
*A.MUTE : Audio mute command
The abnormality continues for 3 seconds.
↓ Continues.
↓ Recovery
The power is shut off.
The program restarts.
The power key is disabled and Standby LED blinks.

But be switched on with the following methods.
① TESTMODE ON (A55F+A55F)
② When power off, push FRONT ENTER key + ADVANCED SURROUND key continuously 2sec.
(②: When a DC abnormality is detected and the power is shut off.)

2. Overload detection

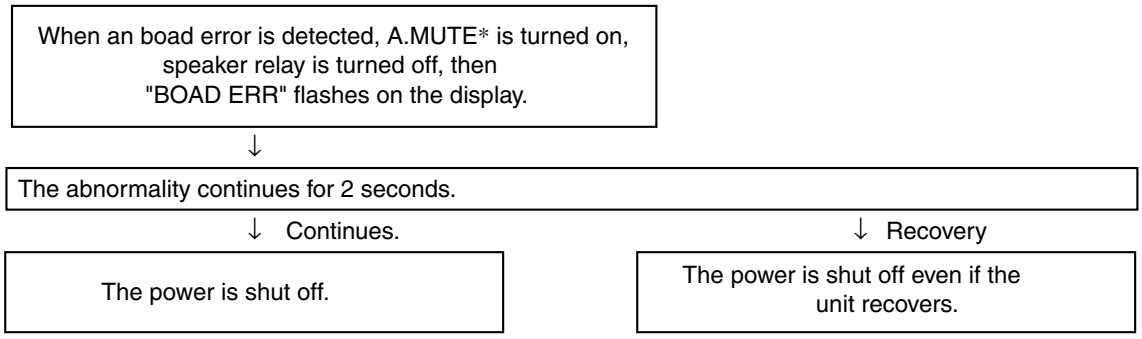
If the speaker terminals are short-circuited or low-load driving is detected, the OL_DET port becomes “L”.
If the “L” is detected, the microprocessor will perform as following flow chart.


When an overload is detected, A.MUTE* is turned on, speaker relay is turned off, then "OVERLOAD" flashes on the display.
The abnormality continues for 3 seconds.
↓ Continues.
↓ Recovery
The power is shut off.
The power is shut off even if the unit recovers.

3. Board detection

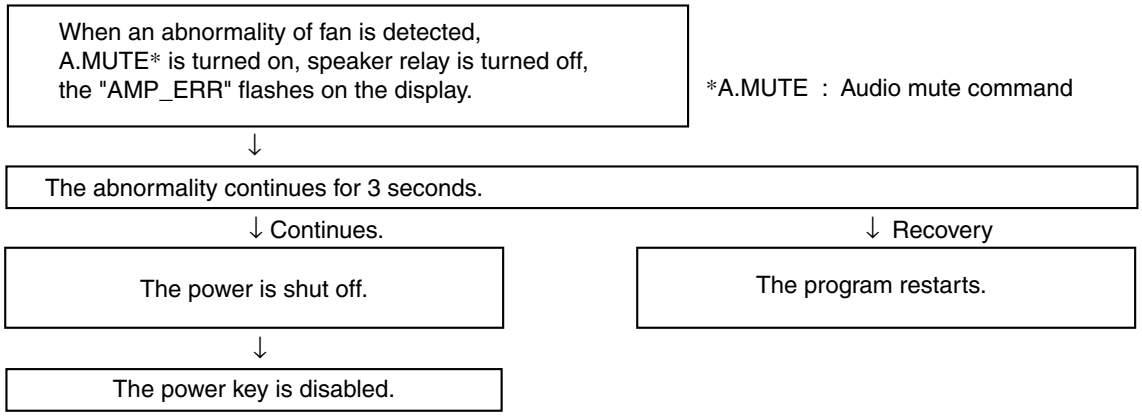
Board detection is only enabled 2 seconds after power-on.
If the board connection from Main Ass'y to Amp&Primary Ass'y is interrupted,
the BOARD_DET port becomes "H".
If the "H" is detected, the microprocessor will perform as following flow chart.

In the case of simultaneous detection with the overload protection circuit,
Board detection is performed preferentially to DC-abnormality detection and Overload detection.


When an boad error is detected, A.MUTE* is turned on,
speaker relay is turned off, then
"BOAD ERR" flashes on the display.
The abnormality continues for 2 seconds.
Continues.
Recovery
The power is shut off.
The power is shut off even if the
unit recovers.

4. Fan stop detection operation flow in the DC abnormality detection

If the fan is forcibly stopped, the 'DC PROT' port becomes "L". Then an abnormality of fan is detected.


When an abnormality of fan is detected,
A.MUTE* is turned on, speaker relay is turned off,
the "AMP_ERR" flashes on the display.
*A.MUTE : Audio mute command
The abnormality continues for 3 seconds.
Continues.
Recovery
The power is shut off.
The program restarts.
The power key is disabled.

However, when the following keys are pushed so that the key input of a line and the service can be carried out, power can be on.

① TESTMODE ON (A55F+A55F)
② When power off, push FRONT ENTER key + ADVANCED SURROUND key continuously 2sec.
(Effective, only when power-off is carried out by DC detection)

7.3.5 AMPLIFIER FAILURE DIAGNOSIS FLOW CHART

■ **Amplifier failure diagnosis flow chart**

When DC detection is activated ("AMP_ERR" flashes on the display), failure (damage) of the power amplifier section is considered.
As DC detection and fan stop protection circuits commonly use same abnormality detection port in microprocessor, please make sure that the operation of fan motor is in normal condition before proceeding to the troubleshooting of amplifier.

Caution:
When release the lock state of power key before repair, please be careful because there is the possibility that more damages will occur when turns on the power once again!

• According to a symptom, perform the following confirmation beforehand.

1) Is the operation of fan motor in normal condition?

2) Are there any Fuses and IC protectors open?

3) After turn on the power, confirm that the supply voltage of the point that can be measured is appropriate.

4) Whether the voltage of pin3 of IC601 or IC602 is equal to (VL-0.7V). If not (eg, equal to VH), then change the corresponding power pack IC601 or IC602.

5) Furthermore, check the output DC voltage of each channel of power pack IC601 and IC602 to limit the failure channel and identify the defect power pack.

• After identify the failure channel, check that each part is not damaged (resistor, diode... etc. value / open / short)

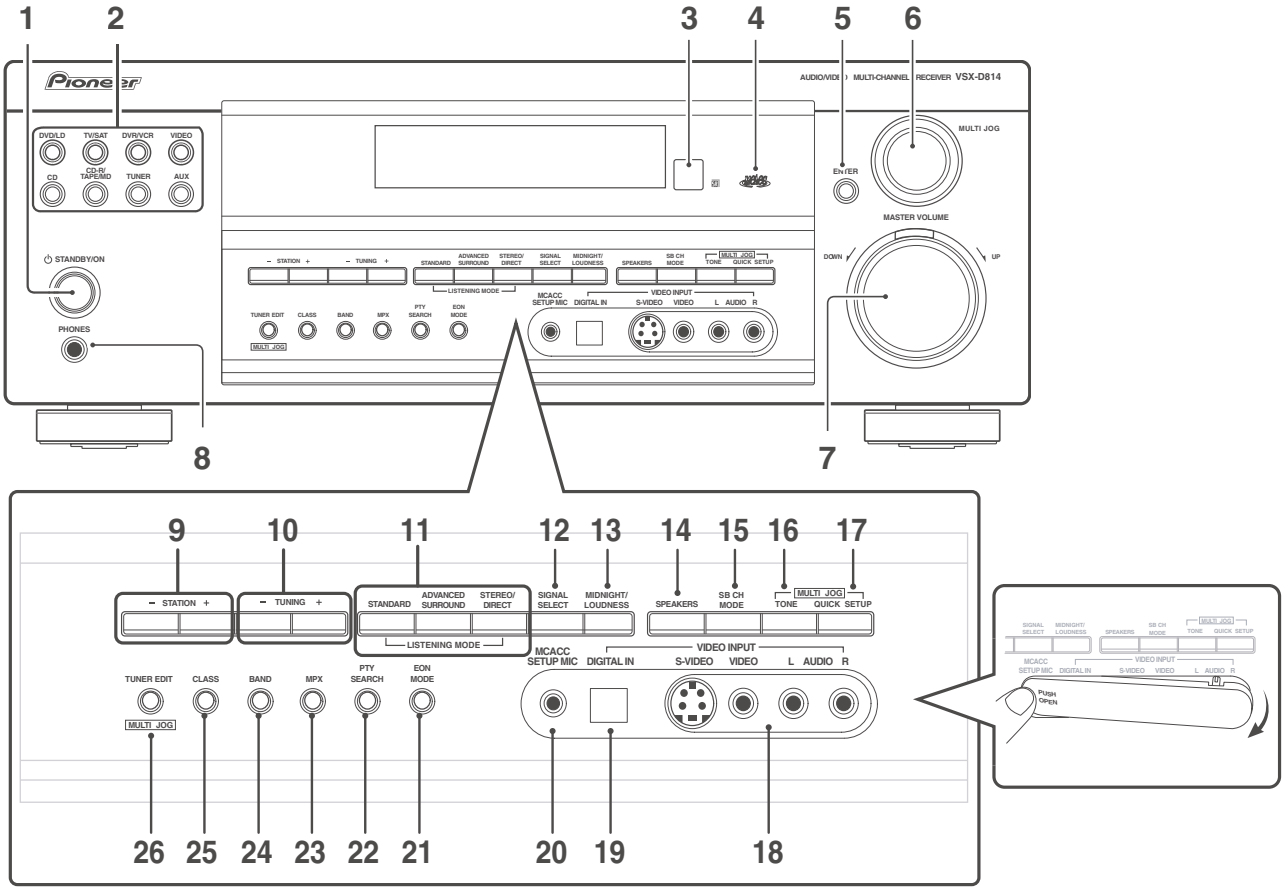
7.4 CLEANING

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

8. PANEL FACILITIES

Front panel



1 ⏻ STANDBY/ON
Switches the receiver between on and standby.

2 Input select buttons
Press to select an input source.

3 Remote sensor
Receives the signals from the remote control.

4 MCACC indicator
Lights after the MCACC setup is complete.

5 ENTER

6 MULTI JOGdial
The **MULTI JOG** dial performs a number of tasks. Use it to select options after pressing **TONE**, **QUICK SETUP** or **TUNER EDIT**.

7 MASTER VOLUME

8 PHONES jack
Use to connect headphones. When the headphones are connected, there is no sound output from the speakers.

9 STATION +/– buttons
Selects station presets when using the tuner.

10 TUNING +/– buttons
Selects the frequency when using the tuner.

11 LISTENING MODE buttons

STANDARD
Press for Standard decoding and to switch between the various Pro Logic II and Neo:6 options.

ADVANCED SURROUND
Use to switch between the various surround modes.

STEREO/DIRECT
Switches between direct and stereo playback. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

12 SIGNAL SELECT
Use to select an input signal.

13 MIDNIGHT/LOUDNESS
Use Midnight when listening to movie soundtracks at low volume. Use Loudness to boost the bass and treble at low volume.

14 SPEAKERS
Use to cycle through the speaker system:
A → B → A+B

15 SB CH MODE
Selects the Surround back channel mode and the Virtual Surround Back (VSB) mode.

16 TONE
Press this button to access the bass and treble controls, which you can then adjust with the **MULTI JOG** dial.

17 QUICK SETUP
See *Using the Quick Setup.*

18 VIDEO INPUT
See *Connecting to the front panel video terminal.*

19 DIGITAL IN

See *Connecting to the front panel video terminal.*

20 MCACC SETUP MIC

Connect the microphone supplied with your system to the **MCACC SETUP MIC** jack when using the auto surround setup (MCACC).

21 EON MODE
Use to search for different programs that are transmitting traffic or news information (this search method is called EON).

22 PTY SEARCH
Use to search for different program types in RDS mode.

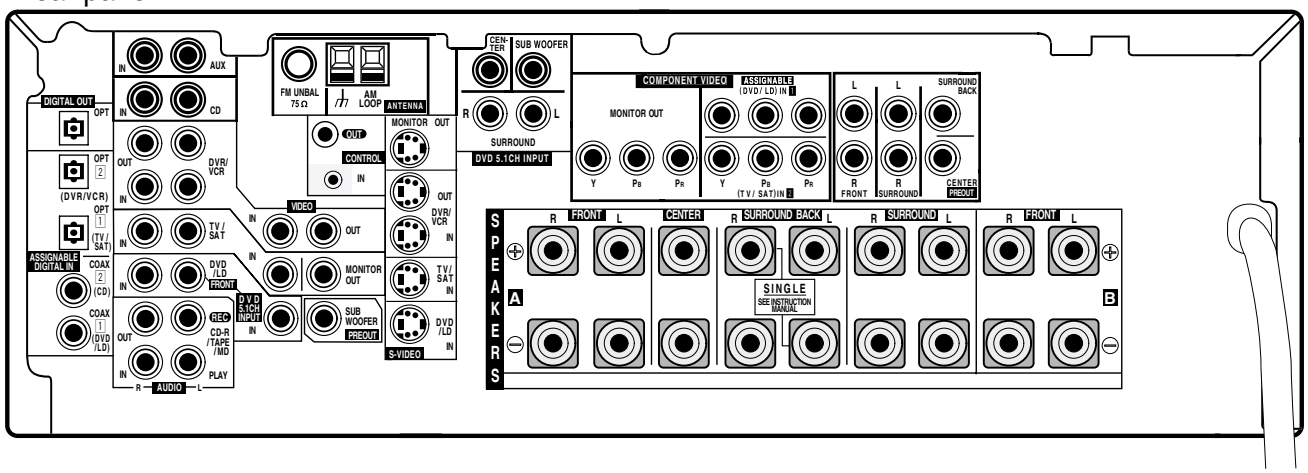
23 MPX
Press to receive a radio broadcast in mono.

24 BAND
Switches between AM and FM radio bands.

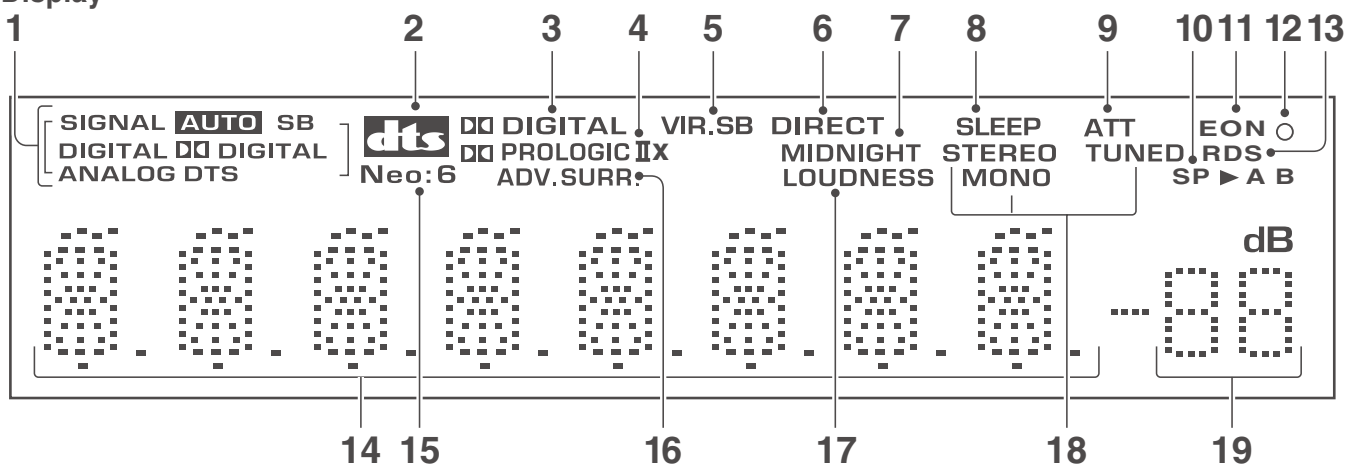
25 CLASS
Switches between the three banks (classes) of station presets.

26 TUNER EDIT
Press to memorize and name a station for recall.

Rear panel



Display



1 SIGNAL SELECT indicators
Lights to indicate the type of input signal assigned for the current component:

AUTO
Lights when **AUTO** signal select is on.

SB
Depending on the source, this lights when a signal with surround back channel encoding is detected.

DIGITAL
Lights when a digital audio signal is detected.

DD DIGITAL
Lights when a Dolby Digital encoded signal is detected.

ANALOG
Lights when an analog signal is detected.

DTS
Lights when a source with DTS encoded audio signals is detected.

2 dts
When the **STANDARD** mode of the receiver is on, this lights to indicate decoding of a DTS signal.

3 DD DIGITAL
When the **STANDARD** mode of the receiver is on, this lights to indicate decoding of a Dolby Digital signal.

4 DD PRO LOGIC II (x)
When the (**STANDARD**) Pro Logic II mode of the receiver is on, this lights to indicate Pro Logic II decoding. The **x** lights to indicate Pro Logic IIx decoding (see *Listening in surround sound* for more on this).

5 VIR.SB
Lights during Virtual surround back processing.

6 DIRECT
Lights when source direct playback is in use. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

7 MIDNIGHT
Lights during Midnight listening.

8 SLEEP
Lights when the receiver is in sleep mode.

9 ATT
Lights when **INPUT ATT** is used to attenuate (reduce) the level of the analog input signal.

10 Speaker indicator
Shows the speaker system currently in use.

11 EON
When the EON mode is set. the **EON** indicator lights, but during actual reception of an EON broadcast the **EON** indicator will flash.

12 ○ indicator
The ○ indicator lights to inform you that the currently tuned station carries the EON data service.

13 RDS
Lights when an RDS broadcast is received.

14 Character display

15 Neo:6
When the (**STANDARD**) NEO:6 mode of the receiver is on, this lights to indicate NEO:6 processing.

16 ADV.SURR. (Advanced Surround)
Lights when one of the Advanced Surround modes has been selected.

17 LOUDNESS
Lights when **LOUDNESS** has been selected.

18 TUNER indicators

STEREO
Lights when a stereo FM broadcast is being received in auto stereo mode.

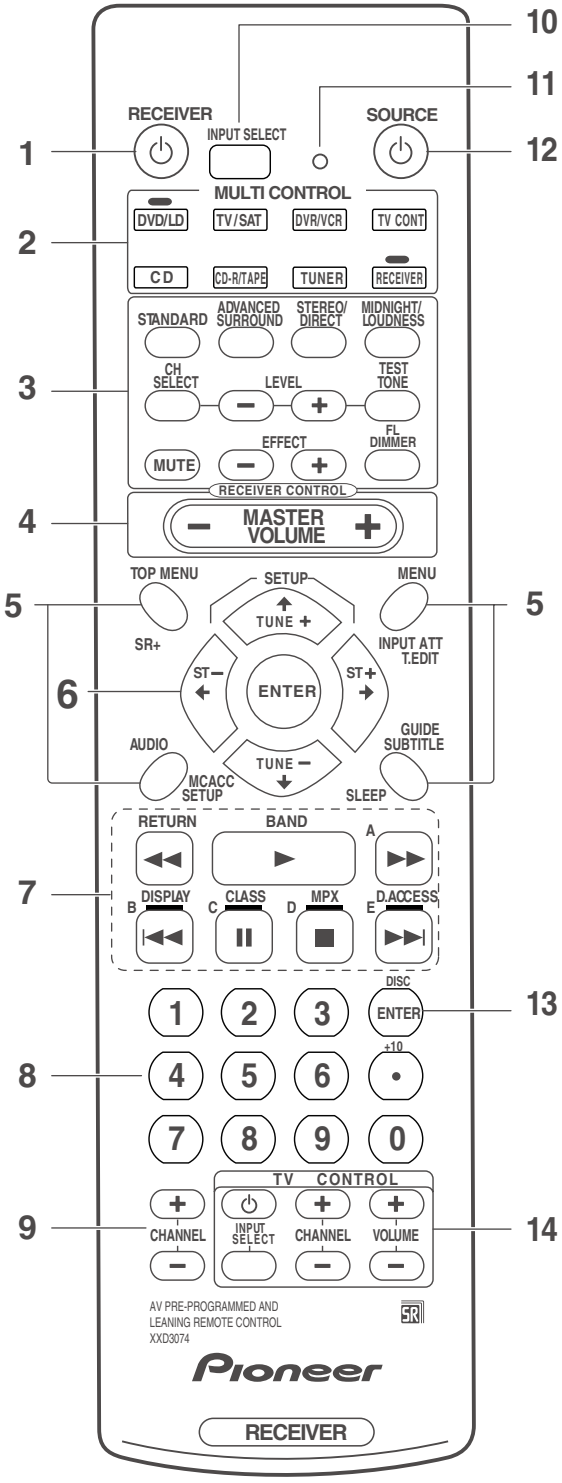
MONO
Lights when the mono mode is set using the **MPX** button.

TUNED
Lights when a broadcast is being received.

19 Master volume level
Shows the overall volume level. **---dB** indicates the minimum level, and **- 0 dB** indicates the maximum level.

Depending on your level settings for each channel, the maximum volume can range between –10 dB and –0 dB.

Remote control



1 RECEIVER ⏻
This switches between standby and on for this receiver.

2 MULTI CONTROL buttons
Press to select control of other components.

RECEIVER
Switches the remote to control the receiver (used to select the features such as **SLEEP**, **MCACC SETUP**, etc). Also use this button to set up surround sound.

3 RECEIVER CONTROL buttons

STANDARD
Press for Standard decoding and to switch between the various Pro Logic II and Neo:6 options.

ADVANCED SURROUND
Use to switch between the various surround modes.

STEREO/DIRECT
Switches between direct and stereo playback. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

MIDNIGHT/LOUDNESS
Switches to Midnight or Loudness listening.

CH SELECT
Selects a speaker when setting up the surround sound of the receiver.

LEVEL +/–
Adjusts the levels of the surround sound of the receiver.

TEST TONE
Sounds the test tone when setting up the surround sound of the receiver.

MUTE
Mutes the sound (or restores the sound if it has been muted).

EFFECT +/–
Adds or subtracts the amount of effect with different advanced surround modes.

FL DIMMER
Dims or brightens the display.

4 MASTER VOLUME +/–
Use to set the listening volume.

5 Receiver and component control buttons *(Press the corresponding* **MULTI CONTROL** *button first to access).*
These controls function according to the component youíve selected.

TOP MENU
Displays the disc 'top' menu of a DVD.

SR+
Switches the SR+ mode on/off.

AUDIO
Changes the audio language or channel with DVD discs.

MCACC SETUP
Use to setup your speaker system using the multichannel acoustic calibration system.

MENU
Displays the disc menu of DVD-Video discs. It also displays TV and DTV menus.

INPUT ATT
Attenuates (lowers) the level of an analog input signal to prevent distortion.

T.EDIT
Use to memorize and name a station for recall using the **STATION +/–** buttons.

GUIDE
Displays the guides on a digital TV.

SUBTITLE
Displays/changes the subtitles included in multilingual DVD-Video discs.

SLEEP
Use to put the receiver in sleep mode and select the amount of time before the receiver turns off.

6 ⇨⇦⇩⇧ (TUNE +/–,ST +/–) / ENTER
Use the arrow buttons when setting up your surround sound system.
Also used to control DVD menus/options and for deck 1 of a double cassette deck player. Use the **TUNE +/–** buttons to find radio frequencies and use **ST +/–** to find preset stations.

7 Component/Tuner control buttons
The main buttons (►, ■ ,etc.) are used to control a component after you have selected it using the **MULTI CONTROL** buttons. The tuner / DTV controls above these buttons can be accessed after you have selected the corresponding **MULTI CONTROL** button (**TUNER** or **TV / SAT** (when connected to DTV)).

RETURN
Returns to the last screen selected when using a digital TV tuner.

BAND
Switches between the tuner AM and FM bands.

DISPLAY
Use to switch the display between the station preset name and the frequency for the tuner. Also displays the different types of RDS information available.

CLASS
Switches between the three banks (classes) of radio station presets.

MPX
Switches between stereo and mono reception of FM broadcasts. If the signal is weak then switching to mono will improve the sound quality.

D.ACCESS
After pressing, you can access a radio station directly using the number buttons.

8 Number buttons
Use the number buttons to directly select a radio frequency or the tracks on a CD, DVD, etc.

9 CHANNEL +/–
Use to select channels when using a VCR, DVR, etc.

10 INPUT SELECT
Use to select the input source.

11 LED
This lights when a command is sent from the remote control.

12 SOURCE ⏻
Press to turn on/off other components connected to the receiver.

13 DISC (ENTER)
The buttonís use depends on the component selected. It can be used to enter commands for TV or DTV, and can also be used to select a disc in a multi - CD player.

14 TV CONTROLbuttons
These buttons are dedicated to control the TV assigned to the **TV CONT** button. Thus if you only have one TV to hook up to this system assign it to the **TV CONT MULTI CONTROL** button. If you have two TVs, assign the main TV to the **TV CONT** button.

⏻
Use to turn on/off the power of the TV.

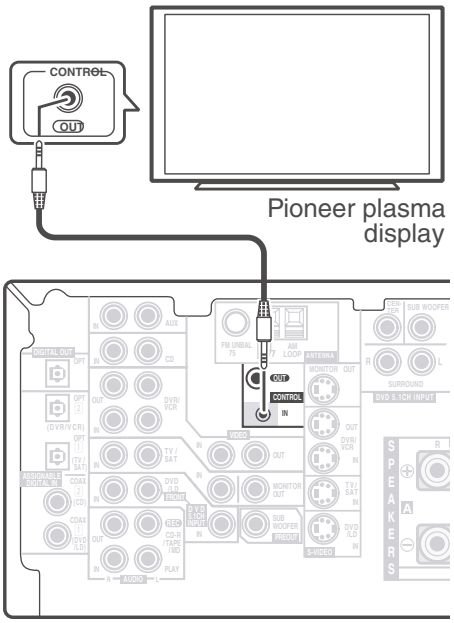
(TV CONTROL) INPUT SELECT
Use select the TV function.

CHANNEL +/–
Use to select channels.

VOLUME +/–
Use to adjust the volume on your TV.

Using this receiver with a Pioneer plasma display

If you have a Pioneer plasma display (models PDP-504HDE and PDP-434HDE), you can use an SR+ cable (see note below) to connect it to this unit and take advantage of various convenient features, such as automatic video input switching of the plasma display when the input is changed.

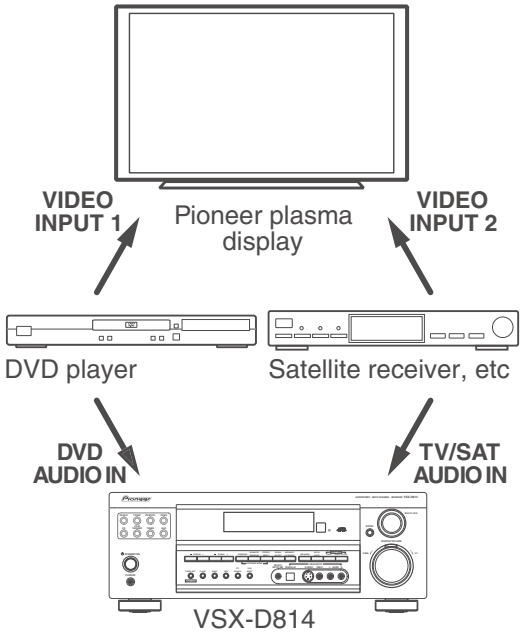


Important

- If you connect to a Pioneer plasma display using an SR+ cable, you will need to point the remote control at the plasma display remote sensor to control the receiver. In this case, you won't be able to control the receiver using the remote control if you switch the plasma display off.

- **Use a 3-ringed miniplug SR+ cable to connect the CONTROL IN jack of this receiver with the CONTROL OUT of your plasma display.**

Before you can use the extra SR+ features, you need to make a few settings in the receiver. See *Using the SR+ mode with a Pioneer plasma display* for detailed instructions.



To make the most of the SR + features, you should connect your source components (DVD player, etc.) in a slightly different way to that described in this chapter. For each component, connect the video output directly to the plasma display, and just connect the audio (analog and/or digital) to this receiver.

Note

- The 3-ringed SR+ cable from Pioneer is commercially available under the part number ADE7095. Contact the Pioneer Customer Support division for more information on obtaining an SR + cable.

SERVICE PARTS

- SR+ mini-plug cable (ADE7095)